



Production Solutions

Plan. Prepare. Protect.

Analytical Quality Control

 **fisher** scientific
part of Thermo Fisher Scientific

Analytical Quality Control

Analysis and Quality Control (QC) play a critical role in pharma and biopharma production. Throughout every stage of the drug development process they ensure that all manufactured products meet the required standards and are of the highest quality.

[Quality Management](#) is also a core value at the Fisher Scientific channel and we are committed to providing our customers with a superior service and high-quality products, perfectly suited to their needs and exceeding their expectations.

Through this commitment we have developed our [SureTRACE](#) and [SureTRACE+](#) programs. Both programs provide full traceability through lot visibility, guaranteed access to associated certificates and a supplier commitment to notify you of changes impacting quality and supply.

Working closely with our supplier partners is one of our key strengths. They support us as we continue to expand our portfolio of innovative products and services, ensuring, like you, that we are putting our customers first.

In this Analytical QC brochure, you will discover products for your most sensitive and critical QC laboratory application - syringe filters for sample preparation and dissolution testing, liquid handling systems for efficient sample transfers, pH meters for electrochemical analysis as well as products for chromatographic and spectroscopic techniques.

Trust in the Fisher Scientific channel to help you
Plan. Prepare. Protect.

Plan. Prepare. Protect.

Contents

Analytical Essentials	4-6
Sample Preparation & Storage	7-15
Liquid Chromatography	16-20
Titration & Karl Fischer Titration	21-22
Elemental Analysis	23-27
Dissolution Testing	28-29
Electrochemical Analysis	30-31
Spectroscopy	32-34
Other Physical Measurements	35-36

You may also be interested in:



Microbial QC Brochure

Helping you to reduce the risk of contamination with disposable filter funnels for sterility testing, swabs and triple wrap plates for environmental monitoring and Quanti-Cult kits for microbial verification. Also discover centrifuges, bottles and biological safety cabinets for safe sampling handling and storage

[Learn More >](#)



QC Interactive Workflow

Analytical and Microbial testing is required at all stages of the biopharmaceutical production workflow. Let our interactive workflow guide you through key products for your most sensitive and critical applications

[Learn More >](#)



Analytical Essentials



We begin with one of the most important commodities used by the pharmaceutical industry – water. Purified water plays a major role in biopharmaceutical quality control testing as it is used not only for a wide range of analytical applications such as HPLC, GC, AAS, it is also used to rinse instruments and equipment.

Also discover in this section liquid handling systems for efficient sample transfers, orbital shakers and recirculating chillers for precise temperature control.



Offering system alerts and specially designed cartridges for long life and easy change, you can obtain Type 1 and Type 2 water quality with reduced maintenance requirements and improved operational efficiency.



Thermo Scientific Recirculating Chillers offer innovative design features such as minimized plumbing connections and an integrated full-flow fluid strainer to maximize product reliability.

Thermo Scientific™ Barnstead™ Smart2Pure™ Water Purification System

- Water purification progresses through independent cartridges with Aquastop quick connects for fast replacement
- Module 1 offers a combination of pretreatment and the reverse osmosis membrane
- Module 2 includes a polishing cartridge that contains high-quality, ultrapure resin for consistent purity and long cartridge life

Easy-to-Operate:

Convert tap water to both ASTM Type 1 and Type 2 water with this compact, all-in-one water system.



Thermo Scientific™ Polar Series Accel 500 LC Cooling/Heating Recirculating Chillers

- Intuitive HMI interface with digital control and readout
- Small internal reservoir and ample cooling capacities translate into fast temperature ramp times
- Pump options available for increased pressure and flow for demanding applications
- System control allows easy operation and fill-and-drain procedure



Designed based on customer input, these easy-to-use cooling/heating recirculating chillers offer full-range cooling for quick ramp-up and cool-down of your application. To ensure ease of use, all operational and preventative maintenance takes place through the front panel interface.

Cat. No	Model	Includes	RO Flow Rate	Pack qty
11337021	Smart 2Pure 3 UV/UF	Internal 6L tank with vent filter, RO/pretreatment cartridge, ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter.	3 L/hr.	1
13121444	Smart 2Pure 12 UV/UF	RO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter.	12 L/hr.	1
11327021	Smart 2Pure 3 UV	Internal 6L tank with vent filter, RO/pretreatment cartridge, ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator and UV lamp.	3 L/hr.	1
11367021	Smart 2Pure 6 UV	Internal 6L tank with vent filter, RO/pretreatment cartridge, ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator and UV lamp.	6 L/hr.	1
13237449	Smart 2Pure 6 UV/UF	Internal 6L tank with vent filter, RO/pretreatment cartridge, ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp and UF filter.	6 L/hr.	1
11307031	Smart 2Pure 12 UV	RO/pretreatment cartridge, an ultrapure polisher cartridge, sterile 0.2µm filter, pressure regulator, UV lamp	12 L/hr.	1

Cat. No	Model	Pack qty
12316323	Force Pump with USB and Low Level Switch	1
12306323	Force/Suction Pump with USB and Low Level Switch	1



Orion™ Versa Star Pro™ Multi Parameter Meter

Digital Data Integrity for pH & Other Electrochemical Measurements

Assuring the integrity of your records when generating and maintaining data is essential to the development and production of high-quality, safe, effective drugs; and as technologies have advanced, especially within electrochemical equipment, the regulatory requirements regarding the integrity of the data they produce, have evolved too.

Whether the requirements are issued by the EMA in Europe, the MHRA in the UK or the FDA in the US, many users of this type of equipment remain, to some degree, unsure of the regulatory requirements around electronic records judging by the continued issuing of fines by these regulatory bodies over recent years, for data integrity compliance problems.

At Thermo Fisher Scientific, we help quality control groups protect against customer complaints and operate more efficiently by providing a range of laboratory products for fast, accurate, and reliable data collection.

Supporting this effort is our Thermo Scientific™ Orion™ Navigator Pro™ 2.0 computer software and Thermo Scientific™ Orion™ Versa Star Pro™ meters, which are designed to offer a computer driven measurement system for generating electronic measurements, calibration data and audit trails.

Orion Navigator Pro software offers multi-level system access for an administrator and up to 100 users. The system administrator can customize each user's access level from full system access to basic data collection only.

With the ability to measure pH, ion concentration, conductivity, dissolved oxygen and temperature already, our Thermo Scientific™ Orion™ Versa Star Pro™ meters become even more versatile when you add on the full computer control that the Navigator Pro software gives you, allowing you to also control all meter functions including meter settings, calibration, measurement, and reporting, to help ensure data integrity.

Orion Navigator Pro software is designed to create electronic data records and audit trails with password protection, which can be used to assist with digital data reporting requirements when paired with each laboratory's proper IT protocols, SOPs and training records.*

- The Orion Navigator Pro software allows you to easily view and collect measurement data from your computer, including the ability to display up to four measurement channels on each Orion Versa Star Pro meter.
- Easy-to-view data records can be exported as a PDF file or sent to a network printer. Optional administrator-only configurable data output allows data records to be exported as PDF, Word, Excel or CSV files. Changes are tracked in the audit trail and can be saved as a PDF file for electronic records submissions and paperless record keeping.
- A simplified setup menu allows instrument and measurement parameters to be set quickly and easily using your computer as the primary interface. Utilize your computer's keyboard to enter sample IDs to help improve sample throughput



*It is the responsibility of each laboratory to validate the Navigator Pro computer software for its intended use, including all regulatory requirements and create protocols, procedures and trainings that address compliance requirements outside of the Navigator Pro functions.

So whether it is the progression to a paperless record keeping system by the generation of electronic records and an associated audit trail, the introduction of a password protection system that limits access to authorized individuals with customizable access levels only or even just full computer control of meter functions including setup, calibration and measurement, the Thermo Scientific™ Orion™ Versa Star Pro™ meters used in conjunction with the Thermo Scientific™ Orion™ Navigator Pro™ 2.0 computer software offers you the ability to meet those needs.

[Learn More](#)



Analytical Essentials



Designed to withstand demanding protocols; including washing and staining in hybridisation assays. A variety of accessories provides flexibility and the touchscreen interface with sealed design supports GMP compliance.

Thermo Scientific™ Solaris™ Open Air Orbital Shaker

- Variable speed control from 15 to 525 rpm with a 25mm orbit
- Maximum load capacity of 25kg (55lbs) for SK2000 and 43kg (95lbs) for SK4000, including the platform, accessories, and samples
- Can operate in temperature ranges of 5° to 40°C (104°F), 20 to 80% noncondensing humidity
- Can be used in a variety of environments, including in warm rooms, incubators, environmental chambers, and refrigerators



These orbital shakers set the new standard for reliability and technical innovation. Ruggedly built for demanding use, they combine a new ergonomic design with key feature enhancements that save you time, protect your process and drive your science forward.

Cat. No	Model	Pack qty
16221591	Solaris 2000	1UNIT
16454310	Solaris 2000	1UNIT
16241591	Solaris 4000	1UNIT
16464310	Solaris 4000	1UNIT



Perform sample transfers between virtually any tube, rack, microplate or horizontal gel box quickly and efficiently with the Thermo Scientific™ E1-ClipTip™ Equalizer Pipette with adjustable tip spacing.

Thermo Scientific™ E1-ClipTip™ Bluetooth™ Electronic Adjustable Tip Spacing Multichannel Equalizer Pipettes

- Tip is locked and sealed in place until ejected — no dropped tips that waste valuable samples
- Complete seal to secure the sample volume in each tip for enhanced accuracy and precision
- Tips are attached and ejected with a light touch — eliminates the frustration of banging tips on the pipette
- My Pipette Creator to revolutionize the way you pipette with a new era of technology
- New web-based pipetting app powered by Thermo Fisher Cloud



Perform sample transfers between virtually any tube, rack, microplate or horizontal gel box quickly and efficiently with adjustable tip spacing.

Cat. No	Number of Channels	Volume	Compatible Tips	Pack qty
15623046	8	0.5 to 12.5 µL	ClipTip 384 12.5	1
15633046	12	0.5 to 12.5 µL	ClipTip 384 12.5	1
15643046	8	1 to 30 µL	ClipTip 384 30	1
15653046	12	1 to 30 µL	ClipTip 384 30	1
15663046	8	2 to 125 µL	ClipTip 200	1
15673046	8	2 to 125 µL	ClipTip 384 125	1
15683046	12	2 to 125 µL	ClipTip 384 125	1
15693046	8	10 to 300 µL	ClipTip 300	1
15603056	6	15 to 1250 µL	ClipTip 1250	1
15613056	8	15 to 1250 µL	ClipTip 1250	1



Safety Starts Here

Keep your people, processes, and facilities safe.

[Learn More](#)




Safety | Protecting What Matters Most

Sample Preparation & Storage




Syringe filters are routinely used for fast and efficient filtering of samples, they ensure the integrity and consistency of your results and act to protect and limit the downtime of your instruments.

In this section, explore the comprehensive range of syringe filters available from the Fisher Scientific channel and use the selection guide to help you select the right filter for your application. Also discover bottles and containers for long term storage as well as barcoded tubes for secure storage at low temperatures.



Acrodisc™ One features Pall's wwPTFE membrane, a universal membrane for solvents and aqueous samples.



Nylon is hydrophilic and appropriate for fluids characterized as strong bases.

Pall Acrodisc One™ PSF Syringe Filters with wwPTFE Membrane

- Extend UHPLC column life over 100 times compared to an unfiltered sample
- Protect expensive instrument detectors and columns
- Contribute minimal extractable material that contaminates critical data
- Available pre-filters produce lower back pressure and higher flow rates for easier sample filtration costs and the expenses associated with downtime for maintenance and recalibration



Pall Acrodisc™ PSF Syringe Filters with Nylon Membrane

- Excellent chemical compatibility with esters, bases, and alcohols
- Saves time because no prewetting is required



Versatile filter for both aqueous and solvent-based sample filtration.

Perform sample clean-up and preparation functions, ensuring the purest samples are analyzed in liquid chromatography, mass spectrometry, and ion chromatography applications. They utilize the water wettable PTFE (wwPTFE) membrane, a universal membrane for solvents and aqueous samples.

Cat. No	Housing Material	Pore Size	Pack qty
17144701	Polypropylene	0.2 µm	50
17154701	Polypropylene	0.2 µm	200
17164701	Polypropylene	0.2 µm	1000
17174701	Polypropylene GxF	0.2 µm	50
17184701	Polypropylene GxF	0.2 µm	200
17194701	Polypropylene GxF	0.2 µm	1000
17104711	Polypropylene	0.45 µm	50
17114711	Polypropylene	0.45 µm	200
17124711	Polypropylene	0.45 µm	1000
17134711	Polypropylene GxF	0.45 µm	50
17144711	Polypropylene GxF	0.45 µm	200
17154711	Polypropylene GxF	0.45 µm	1000

Cat. No	Pore Size	Material (Membrane)	Pack qty
17174671	0.2 µm	Nylon	50
17184671	0.45 µm	Nylon	50
17184681	0.45 µm	Glass Fiber, Nylon	50
17134691	0.2 µm	Glass Fiber, Nylon	50
17174681	0.45 µm	Glass Fiber, Nylon	200
17124691	0.2 µm	Glass Fiber, Nylon	200
17114681	0.45 µm	Nylon	1000
17134681	0.2 µm	Nylon	1000
17154681	0.45 µm	Glass Fiber, Nylon	1000
17144691	0.2 µm	Glass Fiber, Nylon	1000





To Filter, or Not to Filter: The Need for Filtration

Sample and mobile phase filtration are simple economic practices that serve to extend the life of consumable HPLC parts, decrease system wear and tear, and preserve the integrity of the HPLC system. In addition, a properly filtered sample increases the consistency of results.

There are four primary considerations in choosing the best filter for your application. These are:

- What is your analysis type (HPLC, UHPLC, IC, LCMS)?
- What pore size rating is optimal for your sample clean-up?
- Is the filter media chemically compatible with your sample?
- Is your filter application automated or manual?

Typically, a 0.45 µm pore size filter is selected for HPLC applications, while for bacterial removal or UHPLC applications, a 0.2 µm filter is chosen. Additionally, for particulate-laden samples, Pall incorporates a glass fiber pre-filter in some of its devices for clean-up.

However, choosing the wrong filter can be a source of contaminants in the form of extractables that elute into the sample from the filter device.

Pall specifically selects the highest-grade materials and performs rigorous extraction methods on our membrane products to eliminate the occurrence of undesired artifacts, with filters certified for HPLC, UHPLC, Ion Chromatography, and Mass Spectrometry.

For the chemical compatibility of solvents with Pall membranes, consult the compatibility guide below.

Solvent	wwPTFE	PTFE	Glass	Versapor	Nylon	IC, Supor (PES)	PVDF
Acetone	R	R	R	NR	R	NR	NR
Acetonitrile	R	R	R	NR	R	R	R
Acetic Acid, glacial	R	R	R	NR	NR	R	R
n-Butanol	R	R	R	R	R	R	R
Choroform	R	R	R	NR	R	NR	NR
Dimethyl Formamide	R	R	R	NR	R	NR	NR
Dimethyl Sulfoxide	R	R	R	NR	R	NR	R
Ethanol	R	R	R	R	R	R	R
Ethyl Acetate	R	R	R	R	R	NR	R
Ethel Ether	R	R	R	R	R	R	R
Hydrochloric Acid (1N)	R	R	R	•	NR	R	R
Hexane, dry	R	R	R	R	R	LR	R
Methanol	R	R	R	R	R	R	R
Methylene Chloride	R	R	R	NR	R	NR	R
Methyl Ethyl Ketone	R	R	R	NR	R	NR	NR
N-Methyl Pyrrolidone	R	R	R	•	NR	NR	R
Isopropanol	R	R	R	R	R	R	R
Sodium Hydroxide (3N)	R	R	R	R	R	R	NR
Tetrahydrofuran	R	R	R	NR	R	NR	NR
Tetrahydrofuran / Water (50/50)	R	R	R	•	R	•	R
Toluene	R	R	R	R	R	R	R
Water	R	R	R	R	R	R	•
Ammonium Hydroxide	R	R	R	•	•	•	•

R = Resistant, LR = Limited Resistance, NR = Not Resistant, • = Insufficient Data

[Learn More](#)

Sample Preparation & Storage



PTFE hydrophobic membranes repel water and are inert to aggressive organic solvents, making them ideal for gases and organic solvents.

Pall Acrodisc™ PSF Syringe Filters with PTFE Membrane

- More retentive filters remove smaller non-dissolved particles that may rest on the head of the HPLC column and affect analytical results as they dissolve during an analysis



The retention efficiency of the Acrodisc PSF filter can directly increase the life of your HPLC column.

Cat. No	Pore Size	Material (Membrane)	Pack qty
17174661	0.2 µm	PTFE	50
17164661	0.45 µm	PTFE	50
17154691	0.2 µm	Glass Fiber, PTFE	50
17104671	0.45 µm	Glass Fiber, PTFE	50
17184661	0.45 µm	Glass Fiber, PTFE	200
17124681	0.2 µm	PTFE	1000
17104681	0.45 µm	PTFE	1000
17164691	0.2 µm	Glass Fiber, PTFE	1000
17194661	0.45 µm	Glass Fiber, PTFE	1000



PVDF is a hydrophilic membrane, recommended for sample fluids possessing strong acidic character.

Pall Acrodisc™ PSF Syringe Filters with PVDF Membrane

- Useful for a wide range of applications, including aggressive and non-aggressive solvent-based mobile phase
- For research use only



Syringe Filter with hydrophilic membrane compatible with a wide variety of solvents.

Cat. No	Pore Size	Material (Membrane)	Pack qty
17184691	0.2 µm	Glass Fiber, PVDF	50
17134671	0.45 µm	Glass Fiber, PVDF	50
17104701	0.2 µm	PVDF	50
17144671	0.45 µm	PVDF	50
17174691	0.2 µm	Glass Fiber, PVDF	200
17124671	0.45 µm	Glass Fiber, PVDF	200
17194691	0.2 µm	Glass Fiber, PVDF	1000
17114701	0.2 µm	PVDF	1000
17194671	0.45 µm	PVDF	1000



Ion Chromatography (IC) Acrodiscs have been tested using a highly sensitive IC protocol to monitor inorganic extractables, utilising a PES membrane.

Pall Ion Chromatography (IC) Acrodisc™ PSF Syringe Filters, 0.45 µm

- Optimized to provide the most consistent results when analyzing ionic species



Syringe filters specifically designed for ion chromatography applications.

Cat. No	Pore Size	Material (Membrane)	Pack qty
17104691	0.45 µm	PES	50



PVDF is a hydrophilic membrane, recommended for sample fluids possessing strong acidic character.

Pall Acrodisc™ PSF Syringe Filters with PVDF Membrane

- Useful for a wide range of applications, including aggressive and non-aggressive solvent-based mobile phase
- For research use only



Syringe Filter with hydrophilic membrane compatible with a wide variety of solvents.

Cat. No	Pore Size	Material (Membrane)	Pack qty
17114671	0.45 µm	Glass Fiber, PVDF	1000



Sample Preparation & Storage



Simplify your lab operations with the versatility of a regenerated cellulose membrane which exhibits low protein binding. Also available in 13 mm version.

Cytiva Whatman™ Puradisc 25 Syringe Filters

- Pigment-free polypropylene
- Standard inlet and outlet luer connectors
- Tube-tip format (optional) for accurate dispensing into a micro-vial
- Wide range of membranes



Ideal for quick and efficient filtration of samples

Cat. No	Pore Size	Pack qty
16635695	0.2 µm	50
16645695	0.45 µm	50
16675695	0.2 µm	200
16685695	0.45 µm	200



HPLC certified syringe filters for confidence and consistent results. They contain a hydrophilic, low protein binding membrane made of regenerated cellulose, have a low dead volume and a high effective filtration area.

Cytiva Whatman™ 30mm SPARTAN™ Regenerated Cellulose Syringe Filters

- Excellent chemical resistance against the standard aqueous and organic HPLC solvents
- Low dead volume (< 10µl)
- Versatile— Use for any application requiring a chemically resistant hydrophilic, low protein-binding membrane.
- Documented batch-to-batch quality and consistency ensure reproducible results



Provides reproducible results from the filtration of organic and aqueous solutions in HPLC. Whatman™ 30mm Spartan™ Regenerated Cellulose Syringe Filters is resistant to common HPLC solvents and exhibits very low levels of extractables that could otherwise interfere with analysis.

Cat. No	Pore Size	Pack qty
11359344	0.45 µm	50
11369344	0.2 µm	100
10589241	0.45 µm	100
11379344	0.2 µm	500
10004660	0.45 µm	500



Combines four products into one syringeless filter solution for efficient sample preparation. Compatible with most major autosamplers. Saves time, reduces waste and hand stress.

Cytiva Whatman™ Mini-UniPrep™ Syringeless Filters

- Pre-assembled all-in-one filtration unit eliminates the need for syringe filter, syringe, vial and septum, reducing costs by up to 40%
- Wide range of membrane choices in 0.2 and 0.45 µm pore sizes to meet specific sample application requirements
- Compatible with most major autosamplers for high-throughput analysis
- Fewer consumables required



Processes sample loads in one-third the time. Whatman™ Mini-UniPrep™ Syringeless Filters provide a faster and easier way to remove particulates from samples being prepared for HPLC and UHPLC analysis.

Cat. No	Material (Membrane)	Pore Size	Pack qty
11388734	PVDF	0.2 µm	100
11398734	Nylon	0.2 µm	100
11308744	PTFE	0.2 µm	100
11318744	PES	0.2 µm	100
11338744	PVDF	0.45 µm	100
11348744	Polypropylene Depth Filter	0.45 µm	100
11358744	Glass Microfiber	0.45 µm	100
11368744	Nylon	0.45 µm	100
11378744	PTFE	0.45 µm	100
11388744	PES	0.45 µm	100
11398744	Polypropylene	0.45 µm	100
11318754	PVDF	0.2 µm	1000
11328754	Nylon	0.2 µm	1000
11338754	PTFE	0.2 µm	1000
11368754	PVDF	0.45 µm	1000
11378754	Polypropylene Depth Filter	0.45 µm	1000
11388754	Glass Microfiber	0.45 µm	1000
11398754	Nylon	0.45 µm	1000
11308764	PTFE	0.45 µm	1000
11318764	PES	0.45 µm	1000
11328764	Polypropylene	0.45 µm	1000



DURAN™ Protect bottles combine the benefits of virtually inert borosilicate glass with an external plastic safety coating designed to protect both the user and contents from accidents

DWK Life Sciences DURAN™ Protect Laboratory Bottle, With DIN Thread, Plastic Safety Coated, Graduated

- The coating provides scratch, leak* and splinter* protection (* only applies to bottles 5000 ml and less)
- Highly resistant, long service-life coating
- UV protection up to approx. 380 nm due to external coating



Multifunctional glass laboratory bottles with protective safety coating.

Cat. No	Colour	Capacity	Pack qty
11679898	Clear	100 mL	10
11699898	Clear	150 mL	10
11609908	Clear	250 mL	10
11619908	Clear	500 mL	10
11639908	Clear	750 mL	10
11649908	Clear	1000 mL	10
11659908	Clear	2000 mL	10
11639828	Clear	3500 mL	1
11649828	Clear	5000 mL	1



DURAN™ PURE bottles and closures are designed for GMP manufacturing in the pharmaceutical and biotech industry. They feature validation support documentation and are delivered in single lots with Certificate of Analysis.

DWK Life Sciences DURAN™ PURE Clear Glass Bottles

- Made of borosilicate 3.3 neutral Glass Type 1
- Graduated
- Do not include screw caps



Primary packaging products for specific requirements in pharmaceutical industries.

Cat. No	Capacity	Pack qty
15360594	25 mL	10
15436474	100 mL	540
15446474	250 mL	280
13524960	500 mL	10
13534960	1000 mL	10
15356788	2000 mL	120
11945048	5000 mL	1
11955048	10,000 mL	1
11965048	20,000 mL	1



Thermo Scientific Matrix Storage Tubes keep your samples secure at low temperatures. They feature permanent 2D, 1D, and human readable barcodes, offering three levels of identification to reliably track valuable samples.

Thermo Scientific™ Matrix™ ScrewTop Tri-coded Tubes

- Tubes are constructed of virgin class VI medical grade polypropylene
- Racks are constructed of sturdy acrylonitrile butadiene styrene (ABS) to protect tubes in case of accidental dropping



Securely store precious samples at low temperatures, including vapor phase Liquid Nitrogen with Thermo Scientific™ Matrix™ 500µl and 1.0mL ScrewTop Tubes.

Cat. No	Description	Capacity	Pack qty
15389784	V-Bottom ScrewTop Tubes with white patch and linear barcode	1.0 mL	480
12874953	V-Bottom ScrewTop Tubes with white patch and linear barcode	1.0 mL	480
15419973	V-Bottom ScrewTop Tubes with white patch and linear barcode	1.0 mL	480
13466888	V-Bottom ScrewTop Tubes with white patch and linear barcode	1.0 mL	480
15593704	V-Bottom ScrewTop Tubes with white patch and linear barcode	1.0 mL	480
15389804	ScrewTop Tubes in Barcoded Latch Racks	0.5 mL	480
13415868	V-Bottom ScrewTop Tubes with white patch and linear barcode	500 µL	480
15480004	ScrewTop Tube white patch/2D barcode	0.5 mL	480
13466898	V-Bottom ScrewTop Tubes with white patch and linear barcode	500 µL	480
15573724	V-Bottom ScrewTop Tubes with white patch and linear barcode	0.5 mL	480



Rapidly read 2D barcoded tubes in 24, 48, 96 or 384 formats and share the data seamlessly with your LIMS or database. Included linear barcode reader tracks each rack of tubes. Compatible with virtually any database format.

Thermo Scientific™ VisionMate™ High Speed Barcode Reader

- Instantly reads 2D barcoded tubes in 24, 48, 96 and 384 formats without software or setting adjustments
- Can be used on benchtop or in robotic platforms at room temperature down to -40°C
- Software automatically recognizes tube formats and adjusts to optimal reading parameters



Rapidly read 2D barcoded tubes in 24, 48, 96 or 384 formats. Included linear barcode reader helps you track each rack of tubes. Compatible with virtually any database format.

Cat. No	Pack qty
15391964	1



Sample Preparation & Storage



DURAN™ laboratory bottles are the gold standard of lab bottles. Moulded from high-purity, amber, USP/EP Type I borosilicate glass 3.3, that is USP <660> (Spectral Transmission) and EP (3.2.1) compliant.

DWK Life Sciences DURAN™ Original Laboratory Bottle, Amber, with DIN 168-1 Thread, USP / EP (3.2.1) Light Transmission, Graduated



- Standardised GL-thread and matching cap system for particularly tight sealing and simple, clean pouring out
- UV protection up to approx. 500 nm due to external colouration
- The only external application of the colour ensures that internal surfaces have standard DURAN™ glass properties

The gold standard for multifunctional glass laboratory bottles.

Cat. No	Capacity	Pack qty
15379849	10 mL	10
11689908	25 mL	10
11609918	50 mL	10
13137256	100 mL	10
11639918	150 mL	10
11659918	250 mL	10
11679918	500 mL	10
11699918	750 mL	10
11609928	1000 mL	10
11629928	2000 mL	10
11649928	3500 mL	1
11659928	5000 mL	1
11669928	10,000 mL	1



Sartorius Claristep™ enables the processing of Claristep™ filters. Filter units with PP housing and RC membranes used for sample preparation by particle removal prior to analytics.

Sartorius Claristep™ Station and Tray



- Multiplex up to 8 samples
- Simply position the sample vials in the tray of the station and place the Claristep™ Filters on top
- After the sample has been filled into the Claristep™ Filter reservoir the station lid is closed by hand and the liquid is filtered

Claristep™ Station enables the processing of Claristep™ Filters. No vacuum source needed. No power supply needed.

Cat. No	Kit Contents	Pack qty
15539714	Single Tray and Station	1



DURAN™ laboratory bottles are the gold standard of lab bottles. Moulded from high-purity, clear, USP/EP Type I borosilicate glass 3.3, they possess excellent thermal performance and high resistance to chemical attack

DWK Life Sciences DURAN™ Original Laboratory Bottle, Clear, with DIN 168-1 Thread, Graduated



- Standardised GL-thread and matching cap system for particularly tight sealing and simple, clean pouring out
- Fired-on, highly durable white print
- Suitable for long-term storage

The gold standard for multifunctional glass laboratory bottles.

Cat. No	Colour	Capacity	Pack qty
13407119	Clear	10 mL	10
11752282	Clear	25 mL	10
11782282	Clear	50 mL	10
11772282	Clear	100 mL	10
11699888	Clear	150 mL	10
11762282	Clear	250 mL	10
11752272	Clear	500 mL	10
11619898	Clear	750 mL	10
12347178	Clear	1000 mL	10
11792282	Clear	2 L	10
10724052	Clear	3500 mL	1
10038050	Clear	5000 mL	1
10119810	Clear	10,000 mL	1
15233719	Clear	15,000 mL	1
10047990	Clear	20,000 mL	1
15806881	Clear	25,000 mL	1



DURAN™ bromobutyl rubber closures provide a protective seal for all GL 25 and GL 45 laboratory bottles, creating a controlled environment inside the bottle for oxygen and moisture sensitive materials

DWK Life Sciences DURAN™ Grey Bromobutyl Rubber Stopper, Straight Plug, for GL 25 or GL 45 Laboratory Bottles



- Gas tight seal provides controlled environment in the bottle
- Certificate of Conformance (CoC)
- Multiple punctures providing easy access to the contents with a syringe

DURAN™ bromobutyl rubber closure provide a gas tight seal for all GL 25 and GL 45 laboratory bottles.

Cat. No	Standard Taper Joint	Pack qty
16404954	GL 25	10
15896921	GL 45	10



The Trusted & Safest Choice for In-process Pharmaceutical Manufacturers

By Alistair Rees, Product Manager and Chris Hogg Marketing Manager, DWK Life Sciences

Today, borosilicate 3.3 glass is the material of choice in laboratories around the world. But it also brings benefits to a wide range of additional applications, especially for pharmaceutical manufacturing, and packaging.

But what are the specific properties that make borosilicate glass an ideal choice for in-process pharmaceutical manufacturers?

Over 100 years of history

The development of borosilicate glasses can be traced back to the late 19th century. In the 1880s, German chemist Otto Schott had an ambitious goal. He wanted to manufacture a glass that in contrast to soda-lime glass or lead glass would reliably withstand high temperatures and temperature changes, and be resistant to acids, and alkalis.

As his work progressed, one glass formulation was optimized as "borosilicate 3.3 glass" and eventually given the brand name DURAN™ in 1938. This resulting invention created the foundation for modern laboratory and industrial glass and now, 134 years later, DURAN™ glass remains a reliable choice in laboratories, industrial applications, and pharmaceutical packaging.

Glass types explained

To appreciate the benefits that borosilicate 3.3 glass provides, it is important to understand the difference between various glass materials typically used in laboratory, pharmaceutical and industrial sectors, in particular the difference between EP / USP / ISO defined glass types Type I, Type II and Type III glass. The most crucial difference in relation to suitability for pharmaceutical packaging is that of hydrolytic resistance (HR).

Type 1 Neutral glass / borosilicate glasses possess high hydrolytic resistance. They are suitable for most preparations whether for parenteral use or not. Type 2 treated soda-lime glass also has relatively high hydrolytic resistance, though not as high as Type 1 borosilicate glasses. It is suitable for most acidic and neutral aqueous preparations whether for parenteral use or not. Type 3 soda lime glass only possesses moderate hydrolytic resistance. It is only suitable for non-aqueous preparations for parenteral use, for powders for parenteral use and for non-parenteral preparations.

The composition and advantages of DURAN™ borosilicate 3.3 glass



(640A3503) Automated addition of raw material to the DURAN™ glass melting tank

Many of the advantages of borosilicate glass are a direct result of its chemical composition. There are three basic components of all silica glasses: network formers, network modifiers and intermediate species, which act as substitute network formers.

Silicon dioxide SiO₂ is the main network former in silica glasses, typically at 70 % in soda lime silicate glasses. Higher concentrations of SiO lower the thermal expansion coefficient (CoE) and increase chemical resistance but also have the effect of raising the melting temperature. To reduce this melting temperature and thus make production easier, alkali oxides are added to act as network modifiers. However, the impact of this addition is a significant reduction in chemical resistance

DURAN™ borosilicate 3.3 glass on the other hand contains a higher percentage of SiO₂ at 81 per cent as the main network former. This offers a cost-effective compromise with the lowest CoE of all commercial glasses for large-scale technical application. At 13%, boron trioxide acts as the network former, reducing the CoE and slightly increasing chemical resistance (to be classified as a borosilicate glass it must contain at least five per cent boron trioxide). Finally, aluminium oxide is added at 2% and acts as an intermediate species increasing chemical resistance. Levels of alkali (Na & K) oxides are reduced to 4% to provide improved chemical resistance.

The resulting material is one that contains a number of key features that make DURAN™ borosilicate 3.3 glass ideal for use in pharmaceutical primary packaging. This includes very high hydrolytic resistance and a glass that is impermeable to gases. Borosilicate glass is resistant to thermal shock and can be easily cleaned, sterilized and depyrogenated. It can be manufactured as a transparent or amber coloured material and provides a rigid, strong, and dimensionally stable form, all of which makes it suitable for all types of pharmaceuticals packaging.

Meeting pharma requirements

Pharmaceutical manufacturing is a highly regulated sector. The materials used are subject to the highest safety and quality standards. Using DURAN™ borosilicate 3.3 glass to store, process and transport pharmaceutical raw materials, harvest and downstream intermediates, active pharmaceutical ingredients APIs, and excipients, ensures compliance with a wide range of these standards.

Firstly, Neutral DURAN™ borosilicate 3.3 glass meets standards defined by ISO 3585:1998 as well as Type I, Class A (low-expansion borosilicate glass) requirements ASTM E438-92(2018). It is also non-cytotoxic in accordance with ISO 10993-5 and USP and is "Generally Recognized As Safe" (GRAS) by the US Federal Food and Drug Administration (FDA). As a material that is very well characterised with a long safety record it is easier and quicker to validate for use in new processes compared to more recent products such as containers made from polymer films.

Borosilicate glass also meets key hydrolytic resistance requirements as outlined in USP <660> specifications for glass containers and EP (3.2.1) specifications for glass containers for pharmaceutical use.

Finally, amber DURAN™ borosilicate 3.3 glass fully complies with requirements for UV light transmission as specified in USP <660> <671> Spectral Transmission for Coloured Glass, EP 3.2.1. Spectral Transmission for Coloured Glass Containers and JP <7.01> Light Transmission for light-resistant containers.

Borosilicate glass products and accessories from DWK Life Sciences

DWK Life Sciences, the company behind DURAN™ borosilicate 3.3 glass, has a long heritage in the manufacture of labware. The company's roots can be traced back to Otto Schott's earlier mentioned invention of borosilicate glass in 1887 as well as the founding of other leading scientific glass companies, including WHEATON™ and KIMBLE™. In addition to the manufacturing of DURAN™ borosilicate 3.3 glass material itself, the DWK group also implements a range of glass manipulation techniques to enable borosilicate 3.3 glass to exist in a variety of forms, each with their own benefits and application specific purposes.

One of the most notable product ranges is the DURAN™ PURE bottles, which exist in GL 25, and 45 threads and various volumes. DURAN™ PURE bottles are also available in amber to provide protection for stored substances against UV light. Here, the protection crucially comes from amber coating, meaning the colour is fused to the outer surface of the bottle only resulting in the extractables profile of the inner glass surface being identical to that of the clear bottles. DWK also provides the DURAN™ GLS 80™ wide neck bottles and a range of screw cap closure options that are designed specifically for use in pharmaceutical applications.

640A3770 - Automated DURAN™ glass bottle moulding

In addition to being the original product manufacturer, with processes based on long-term commitments to quality and control, DWK also offers a range of technical and compliance support services to help pharmaceutical customers. This includes evaluations of technical drawings, product specifications and material specifications as well as validation support material such as Origin Statements, DMFs, Material Compliance, Extractables studies, ICH Q3D elemental impurity statements, cytotoxicity, and stability studies. DWK also offers supply control measures, including lot-specific certificates, single lot delivery, product change notifications and quality agreements, and revalidations through manufacturing site audits and documentation reviews.



549720 DURAN™ PURE Type I glass bottles in-process containers from DWK Life Science

DWK Life Sciences: a trusted partner for pharmaceutical manufacturers

Through its specific composition, borosilicate glass possesses the key features that make it a safe and trusted material for use in pharmaceutical production and primary packaging. By choosing DURAN™ borosilicate 3.3 glass for key applications, in-process pharmaceutical manufacturers are selecting a material that already confirms with a comprehensive range of safety and quality standards. By working with DWK Life Sciences, it is not only the company's DURAN™ borosilicate 3.3 glass, but its range of accompanying services that provides pharmaceutical manufacturers with a trusted partner capable of supporting their work.

[Learn More](#)



Click on a product to access a full detailed product selection

eu.fishersci.com/go/analysis-qc



Recirculating Chillers

Do I need temperature control? I need temperature control!

It is hard to imagine modern science and industry without modern methods of analysis. Mass spectrometry, HPLC, gas chromatography, different types of spectroscopy and contemporary microscopical methods (electron microscopy (TEM; SEM AFM, STM) confocal microscopy) have become a bedrock of sample analysis, research and development of new materials, quality control and a number of other scientific and industrial areas. Beside these modern and cutting-edge tools there are many more routine R&D methods and applications such as solvent evaporation, different options of thermal analysis such as DSC, thermogravimetry and combustion calorimetry to name a few. But what do these applications have in common? The answer is simple: temperature control. This requirement is an essential option to get reliable and reproducible results of measurements and to extend the life of sensitive and expensive analytical equipment.

Why is temperature control so important? In all mentioned analytical applications, the target signal by measurement is the detector signal. The detector signal depends dramatically on the detector temperature and the temperature of the elements that enhance and treat the measurement signal. To increase signal/noise intensity ratio, it is crucial to decrease the temperature of the detector and the supplementary elements. In addition to cooling capacity, temperature stability as part of temperature control is needed. Without removing heating, reliable quality of the cooling equipment and temperature stability it is highly possible to count on trustable and reproduceable measurement results. In addition, overheating of a spectrometer or X-ray equipment can destroy pricy equipment and lead to enormous expenses.

In our comprehensive product portfolio, we have a wide range of temperature control products that are relevant to most application areas. By leveraging our long history of product development and manufacturing, you can configure a flexible, cost-effective temperature control system that suits your specific requirements. The choice of the correct recirculating chiller or a bath circulator is determined by the main product requirements such as temperature range, necessary heating and cooling rates, pressure, cooling and/or heating capacity. For mass spectrometry and chromatographic techniques the Thermo Scientific™ ThermoFlex™ recirculating chiller series may be an optimal choice due to the configurable product platform in terms of temperature range and reliability. To avoid overheating of an electron microscope, a Thermo Scientific™ ThermoFlex™ recirculating chiller may be a solution because of its optimized cooling capacity up to 24 kW and absence of temperature deviation. In addition its low operating noise (<58 dBA) leads to less stressful working conditions.

For thermogravimetric analysis the recommended matches from our product portfolio are the Thermo Scientific™ ThermoChill™ and ThermoFlex™ recirculating chiller series products. The broad temperature range (-10 °C to +30 °C), high temperature stability (± 0.1 °C) and cooling capacity up to 2.0 kW cover almost all needs of thermal analysis. By DSC measurement where -80°C is essential, we suggest Thermo Scientific™ EK Immersion Coolers with an option of customization.

In addition to the high product quality and broad product portfolio benefits, we can offer

- Extensive global footprint, service and support
- Global voltage capability
- Innovative manufacturing solutions that mean an easy-to-use, easy to-maintain and high-performance product relevant to the most demanding applications
- Global compliance (CE, CSA/UL, RoHS/WEEE)



[Learn More](#)



Optimise your analysis right from the start by protecting your samples in Thermo Scientific Nalgene lab bottles – offering leak-proof guarantee and trusted quality performance.

Thermo Scientific™ Nalgene™ Wide-Mouth HDPE Bottles with Closure: Bulk Pack

- Natural high-density polyethylene bottles with natural polypropylene closures
- Excellent chemical resistance
- Leakproof when used with Nalgene closures



Ordering Information:

Bottles and closures are packed in separate polybags within the same carton.

Fill and dispense liquids using these wide-mouth HDPE bottles, which are leakproof when used with Nalgene closures.

Cat. No	Capacity	Closure Size	Pack qty
10417243	30 mL	28 mm	1000
10049352	60 mL	28 mm	1000
10140663	125 mL	38 mm	500
10059352	250 mL	43 mm	250
10593955	500 mL	53 mm	125
10434933	1 L	63 mm	50



Representing quality and reliability, Thermo Scientific Sterilin containers offer an extensive range of sterile, DNA-free containers with easy labelling options.

Thermo Scientific™ Sterilin™ Polystyrene 30mL Universal Containers

- Leak-tested in accordance with BS EN 14254 Annex D
- 95kPa-compliance ensures leak-free performance and suitability for transport (except spoon variants)
- Available pre-filled with boric acid (0.4g) for the preservation of urine samples
- Suitable for centrifugation at 3,800 x g



Ensure excellent sample containment using Sterilin Polystyrene 30mL Universal Containers, featuring a traditional flow seal with 1-1/2 turn cap.

Cat. No	Label	Pack qty
12501299	No Label	400
12511299	Printed	400
12799855	Printed	400
12521299	Plain	400
11758918	No Label	400
11768918	Printed	400
11309143	Plain	400



Take another look at how you work

Optimize your QC workflow
with Whatman™ filtration
products from Cytiva

[Learn More](#)



Liquid Chromatography

Liquid Chromatography (LC) has been established as the key analytical technique in quality control laboratories, with the most common form being High Performance Liquid Chromatography (HPLC).

HPLC is a highly sensitive and selective analytical method used to identify different compounds found in solutions. It is used for process development, in-process analysis, API release testing, drug product release testing and stability monitoring programs.



★ DURAN™ reservoir bottles are designed for the storage and delivery of HPLC mobile phases and solvents. The conical bottom allows a greater recovery of solvent without having to tilt the reservoir and risk a solvent spill

★ Superior purity, stability and exceptional lot-to-lot consistency

DWK Life Sciences DURAN™ HPLC Reservoir Bottle, Clear, Conical Base, GL 45



- The optimized conical design allows the safest and most efficient delivery of mobile phase to HPLC analysers
- Manufactured from the material of choice for solvent bottles: borosilicate 3.3 glass. This material has an exceptional chemical durability offering a very low inorganic ion extractables profile, and the total absence of any organic extractables.
- DURAN™ is a borosilicate glass type 3.3 as specified by the international standard ISO 3585, and is classified as a Type I, Class A low-expansion borosilicate glass as defined by ASTM-E438-1992
- DURAN™ glass is classified by the USP / EP / JP pharmacopoeias as a Type I neutral glass

The optimized conical design allows the safest and most efficient delivery of mobile phase to HPLC analysers.

Cat. No	Capacity	Pack qty
15819007	1000 mL	1
15829007	2000 mL	1
16444944	3500 mL	1
15839007	5000 mL	1
15849007	10,000 mL	1

Methanol, LC-MS CHROMASOLV™, Honeywell Riedel-de Haën™



- For LC-MS and LC-UV trace metals analysis
- HPLC / UV-VIS quality control
- Low gradient baseline drift
- Low levels of trace metals
- No non-volatile impurities

Cat. No	Capacity	Pack qty
15614740	1 Litre	1
15624740	2.5 Litres	1
15644740	2.5 Litres	4
15664740	1 Litre	6
15604740	1 Litre	144



All Honeywell LabReady™ solvent blends are made using a proprietary closed loop precision apparatus, with high purity and consistent products, assuring you reproducible and accurate results, lot after lot

Acetonitrile with 0.1% formic acid, Honeywell Riedel-de Haen™

- For LC-MS and LC-UV trace metals analysis
- HPLC / UV-VIS quality control
- Low gradient baseline drift
- Low levels of trace metals
- No non-volatile impurities



Cat. No	Capacity	Pack qty
15624330	2.5 Litres	1



Honeywell Fluka™ analytical standards. Every vial comes complete with a printed certificate of analysis (CoA), ensuring you have the information needed to quickly start your analysis and pass relevant audits

Acetone, Fluka™

- Produced according to ISO 9001
- Suitable for a wide range of industries and applications
- Detailed Certificate of Analysis included with every delivery
- Expert Technical Support



Honeywell Fluka™ offers an expanding range of high quality inorganic certified reference materials and organic reference materials.

Cat. No	Capacity	Pack qty
15939477	5mL	1



SureSTART Polypropylene Screw Top Microvials for <2 mL samples when analysing polar compounds/ analytes. Spec. Certified to ensure autosampler compatible for all HPLC/UHPLC instruments. Seal with 9 mm screw cap and septa.

Thermo Scientific™ SureSTART™ Polypropylene Screw Top Microvials

- Have a single wave on the vial
- Polypropylene vials are recommended when analysing polar compounds /analytes
- Are suitable for QA/QC applications using core detectors
- Suitable for HPLC/UHPLC applications



They provide an affordable choice and can be used with all HPLC/ UHPLC instrument types. These clear plastic 2 mL screw top microvials are Specification Certified to ensure autosampler compatible physical dimensions. Seal these screw top vials with 9 mm screw caps and septa.

Cat. No	Volume (Metric) Residual	Volume (Metric) Total	Volume (Metric) Usable	Pack qty
17373913	4 µL	0.4 mL	0.3 mL	100
17393913	4 µL	0.4 mL	0.3 mL	1000
17383913	4 µL	0.4 mL	0.3 mL	5000
17303923	170 µL	1.5 mL	1 mL	100
17323923	170 µL	1.5 mL	1 mL	1000
17313923	170 µL	1.5 mL	1 mL	5000



Maximize injection volume for <2 mL samples with 1.5 mL Total Recovery Glass Snap Top Microvials. Get a very low residual volume due to a specially shaped deep and narrow inner reservoir for your most demanding analyses.

Thermo Scientific™ SureSTART™ 1.5 mL Total Recovery Glass Snap Top Microvials

- Specification Certified to ensure their physical dimensions and autosampler compatibility
- Meets all requirements of US, EU, JPN Pharmacopeia
- Use 11 mm snap caps and septa or 11 mm crimp caps and septa to seal this vial



Use SureSTART™ 1.5 mL Total Recovery Glass Snap Top Microvials, Performance Level 3, to maximize injection volume when analysing samples of less than 2 mL.

Cat. No	Volume (Metric) Usable	Volume (Metric) Total	Pack qty
17364033	1.1 mL	1.5 mL	100
17374033	1.1 mL	1.5 mL	1000
17384033	1.1 mL	1.5 mL	5000



Liquid Chromatography



Obtain high resolution and low carryover with ProPac™ Elite WCX HPLC Column for therapeutic proteins including monoclonal antibodies(mAbs), antibody drug conjugates, (ADCs) biosimilars and charge variants.

Thermo Scientific™ ProPac™ Elite WCX HPLC Column



- Superior resolution power for proteins, monoclonal antibodies, and associated charge variants
- High efficiency with reproducible separations
- Wide pH operating range: 2 – 12
- High temperature stability: up to 60°C
- Compatible with CX-1 pH Gradient Buffers

This column provides consistent separations of therapeutic proteins including monoclonal antibodies, antibody drug conjugates, biosimilars and charge variants.

Cat. No	Particle Size	Diameter (Metric)	Length (Metric)	Pack qty
15903942	5 µm	2 mm	50 mm	1
15993932	5 µm	2 mm	150 mm	1
16356931	5 µm	4 mm	50 mm	1
15943932	5 µm	4 mm	150 mm	1
15973932	5 µm	4 mm	250 mm	1
15953932	5 µm	4 mm	150 mm	3
15963932	5 µm	4 mm	150 mm	3
16575934	5 µm	9 mm	150 mm	1



WebSeal 96-Well Non-Coated Plastic Microplates provide excellent solvent resistance and low background noise. Made with high-quality GC-tested polypropylene.

Thermo Scientific™ WebSeal 96-Well Non-Coated Plastic Microplates



- Pharmaceutical and industrial QA/QC
- High-throughput screening (HTS)
- Sample collection and storage
- Combinatorial chemistry
- Liquid phase assay

For any standard application or assay, you can be sure of excellent solvent resistance and low background noise with these high quality polypropylene 96-well microplates.

Cat. No	Total Volume (Metric) Well	Pack qty
15102699	450 µL	20
15142699	1300 µL	5
15162699	2000 µL	5
15182699	2000 µL	5
15112699	450 µL	120
17493193	2000 µL	50
15851435	252 µL	100
15152699	1300 µL	50
15884304	145 µL	100
15172699	2000 µL	60
15836261	1100 µL	50
15192699	2000 µL	50
15846261	1600 µL	96
15152729	1200 µL	50
15172729	2000 µL	50
15192719	350 µL	100
15112729	270 µL	100
15132729	220 µL	100
15886261	100 µL	50
15162729	1200 µL	5
15182729	2000 µL	5
15102729	350 µL	10
15122729	270 µL	10
15142729	220 µL	10

fisher scientific

Safety Starts Here

Keep your people, processes, and facilities safe.

[Learn More](#)



Safety | Protecting What Matters Most



Improve the separation efficiency with Acclaim 120 C18 columns. Featuring an ultrapure silica substrate yielding symmetrical peak shapes, and highly predictable separations that are unaffected by secondary interactions.

Thermo Scientific™ Acclaim™ 120 C18 Columns

- Very high surface coverage and very low metal content together result in columns with excellent efficiencies
- Reproducible column-to-column performance
- Extremely low bleed, fully compatible with MS
- Stable between pH 2 and 8



Improve the separation efficiency in your reversed-phase applications with Thermo Scientific™ Acclaim™ 120 C18 columns. These columns feature an ultrapure silica substrate with extremely low metal content to minimize tailing effects and deliver symmetrical peak shapes. The unique bonding chemistry yields excellent surface coverage to provide highly predictable separations that are unaffected by secondary interactions. Use these high-efficiency columns for maximum resolution in a wide variety of applications.

Cat. No	Particle Size	Diameter (Metric)	Length (Metric)	Pack qty
11351783	5 µm	2.1 mm	50 mm	1
11361783	5 µm	2.1 mm	100 mm	1
11371783	5 µm	2.1 mm	150 mm	1
11381783	5 µm	2.1 mm	250 mm	1
11391783	5 µm	4.6 mm	50 mm	1
11301793	5 µm	4.6 mm	100 mm	1
11311793	5 µm	4.6 mm	150 mm	1
11321793	5 µm	4.6 mm	250 mm	1
12361143	3 µm	2.1 mm	250 mm	1
12709805	3 µm	3 mm	100 mm	1
11332073	2.2 µm	2.1 mm	250 mm	1
11371953	2.2 µm	3 mm	50 mm	1
11361953	2.2 µm	3 mm	100 mm	1
11331953	2.2 µm	2.1 mm	30 mm	1
11311953	2.2 µm	2.1 mm	150 mm	1
11341933	3 µm	3 mm	250 mm	1
11311913	2.2 µm	2.1 mm	100 mm	1
11321913	2.2 µm	2.1 mm	50 mm	1
11381883	3 µm	3 mm	75 mm	1
11371883	3 µm	3 mm	33 mm	1
11351863	3 µm	3 mm	150 mm	1
11361773	3 µm	4.6 mm	150 mm	1
11351773	3 µm	4.6 mm	100 mm	1
11341773	3 µm	4.6 mm	50 mm	1
11331773	3 µm	2.1 mm	150 mm	1
11321773	3 µm	2.1 mm	100 mm	1
11371973	5 µm	3 mm	10 mm	1
11301923	5 µm	4.6 mm	10 mm	2
11341733	5 µm	2.1 mm	10 mm	2
11311773	3 µm	2.1 mm	50 mm	2
12769795	2.2 µm	3 mm	75 mm	1



Achieve superior separation of oligos, and double stranded (ds) DNA/RNA fragment, using the DNAPac RP column. This wide pore size of the resin provides excellent separation of large ds nucleic acids up to 10k base pairs.

Thermo Scientific™ DNAPac™ RP Columns

- Designed for ion-pair reversed-phase (IP-RP) separations of both oligonucleotides and double-stranded nucleic acids
- High resolution and high throughput
- Excellent MS compatibility
- Wide operating pH range (0-14) and high temperature stability (up to 110°C)



Get high resolution LC and LC-MS separation of oligonucleotides, including double-stranded (ds) DNA/RNA fragments, using these DNAPac reversed phase columns.

Cat. No	Particle Size	Diameter (Metric)	Length (Metric)	Pack qty
15501693	4 µm	3 mm	100 mm	1
15511693	4 µm	3 mm	50 mm	1
15521693	4 µm	3 mm	10 mm	2
15531693	4 µm	2.1 mm	100 mm	1
15541693	4 µm	2.1 mm	50 mm	1
15551693	4 µm	2.1 mm	10 mm	2



SMART Digest provides fast and simple protein digestion with high reproducibility, high sensitivity, and high levels of data quality in a format that's compatible with automation.

Thermo Scientific™ SMART Digest™ Trypsin Kits

- Significantly increased speed of sample processing
- Simple process
- Easily automate entire protocol for high-throughput processing



Obtain fast, simple, and highly reproducible trypsin protein digestion for peptide characterization and quantitation in biopharmaceutical protein research.

Cat. No	Particle Size	Pack qty
15382360	SMART Digest Trypsin Kit, with Collection plate	1
16434839	Smart digest kit with bulk resin, low pH	1
15994417	Smart digest kit with collection plate, low pH	1
15317298	SMART Digest Trypsin Kit, with SOLAµ/collection plate	1
16444839	Smart digest kit, magnetic bead, bulk, low pH	1
15357350	SMART Digest Trypsin Kit, with Filter/Collection plate	1
15791377	SMART Digest Trypsin Kit, Magnetic Bulk Resin option	1
15648663	SMART Digest Trypsin Kit, Magnetic Bulk Resin option	1
15658663	SMART Digest Trypsin Kit, Bulk Resin option with Filter/Collection plate	1
15668663	SMART Digest Trypsin Kit, Magnetic Bulk Resin option with Filter/Collection plate	1
15678663	SMART Digest Trypsin Kit, Bulk Resin option with SOLAµ/collection plate	1
15668693	SMART Digest Trypsin Kit, Soluble	1
15688663	SMART Digest Trypsin Kit Magnetic Bulk Resin option with SOLAµ/collection plate	1



Liquid Chromatography



Ready to use CX-1 pH Gradient Buffers avoid time-consuming mobile phase adjustments and make it possible to run a reproducible shallower pH gradient over a narrower pH range. Use to facilitate method transfer to QA/QC for a wide range of mAb charge variants.

Thermo Scientific™ ProPac™ Elite WCX HPLC Column

- Robust, reproducible gradients
- Predict biomolecule pH
- Simple method optimization
- Easily automated
- Applicable to the majority of MABs



Robust reproducible gradients that are applicable to a wide range of MABs and ready to use with existing LC columns and systems, without the need to formulate mobile phases.

Product Code	Description	pH	Quantity	Pack qty
15125624	CX-1 pH Gradient Buffer A	5.6	125 mL	1
15135624	CX-1 pH Gradient Buffer B	10.2	125 mL	1
15145624	CX-1 pH Gradient Buffer A	5.6	250 mL	1
15155624	CX-1 pH Gradient Buffer B	10.2	250 mL	1
15870452	CX-1 pH Gradient Buffer A	5.6	500 mL	1
15880452	CX-1 pH Gradient Buffer B	10.2	500 mL	1



BioPharma Solutions

Discover - Research - Develop - Produce - Test

The Fisher Scientific channel is able to support and provide you with a complete offering of products, services and solutions across your pharmaceutical drug discovery and developmental workflow.



Help & Support Center

Visit and Bookmark our [New Help & Support Center](#)

We've launched our new Help & Support Center to help you maximise our website capabilities. Look for the Help & Support Center link in both the header and footer of the site, under Customer Support.

Check your order status, look up quotes, view your invoices and more!

Find out more on: eu.fishersci.com

Titration & Karl Fischer

Titration

Karl Fischer titration (KFT) is the most widely used analytical technique for the determination of water content in the pharmaceutical industry. Water content determination is a critical parameter to ensure quality product and to assure the chemical and physical properties of the finished product.



Electrochemistry technology coupled with a modern reagent dispensing system to create a simplified automated titrator to make titrations easier, more reliable, more reproducible and faster than manual titrations.



Hydranal™ reagents providing high titration speed, stable end points, accurate results and long shelf life

Thermo Scientific™ Orion Star T910 pH Titrator and Kits

- Accurate, reproducible results: Automating the titration workflow enables analysis to be run using the same setup parameters and calculations every time
- Improved lab throughput: Start the titration and let the instrument run unattended
- Reduced cost and downtime: Easily replace titrator parts to minimize maintenance downtime while long lasting electrodes reduce the cost of ownership



Benefit from the integration of our core electrochemistry technology with a state-of-the-art dispensing system to create an automated pH titrator, a modern, simplified automated system designed to help make performing titrations easier, more reliable and more reproducible than manual titrations.

Cat. No	Description	Includes	Pack qty
15871282	Orion Star T910 pH titrator without electrode	20 mL burette, stirrer probe, dispenser probe, standard tubing kit, 1 L plastic bottle, GL38 bottle cap with two ports and drying tube, computer cable, USB drive, 110-240 V power supplies	1
15881282	Orion Star T910 pH titrator standard ROSS kit	8102BNUWP ROSS Ultra pH electrode, 927007MD ATC probe, 20 mL burette, stirrer probe, dispenser probe, standard tubing kit, 1 L plastic bottle, GL38 bottle cap with two ports and drying tube, computer cable, USB drive, 110-240 V power supplies	1
15891282	Orion Star T910 pH titrator ROSS Sure-Flow kit	8172BNWP ROSS Sure-Flow pH electrode, 927007MD ATC probe, 20 mL burette, stirrer probe, dispenser probe, standard tubing kit, 1 L plastic bottle, GL38 bottle cap with two ports and drying tube, computer cable, USB drive, 110-240 V power supplies	1

HYDRANAL™ - Composite 5, Reagent for volumetric one-component Karl Fischer titration (methanol free), Honeywell™ Fluka™



Hydranal™ is the most trusted brand in Karl Fischer titration because of its dedication to quality, consistency and continued innovation.

Cat. No	Capacity	Pack qty
15644440	500mL	1



Elemental Analysis



Aqualine™ volumetric range: for high water content analysis

Karl Fischer Aqualine™ Complete 1, for Karl Fischer Titration By Volumetry, Fisher Chemical™

- Water equivalent: 1.0mg H₂O/mL
- Unlimited water capacity
- Perform titer determination before use
- Pyridine free

Single-component volumetric reagent for high water content analysis



Cat. No	Capacity	Pack qty
10538810	1 Litre	1



Aqualine™ coulometric range: for low water content at ppm level

Karl Fischer Aqualine™ Electrolyte AG, for Karl Fischer Titration By Coulometry, Fisher Chemical™

- Analyte solution for use in conventional cells with a diaphragm
- Source of electrolyte required for anodic oxidation for coulometric analysis
- Contains methanol as a solvent

Nonhalogenated analyte solution for general use in conventional cells with a diaphragm



Cat. No	Capacity	Pack qty
10724893	1 Litre	1



Aqualine™ Solvent designed to meet the needs of the analytical chemist by providing accurate moisture content determination

Karl Fischer Aqualine™ Solvent, for Karl Fischer Titration By Volumetry, Fisher Chemical™

- Used in conjunction with Aqualine™ titrant for two component volumetric Karl Fischer analysis

Solvent for two-component system; Pyridine free



Cat. No	Capacity	Pack qty
10101580	1 Litre	1

edge»»

Get Same-Day Dispatch


on Our Most Popular Products

[Learn More >](#)

Elemental Analysis

Elemental analysis and trace metal testing of biopharmaceuticals is crucial to drug product quality control and commercial release. Understanding the element composition of raw materials, active drug ingredients, excipients or preparations help to ensure product quality and purity.





Sartorius Cubis™ II premium balances featuring a completely modular design. Different QApp packages are available to fulfill unique demands and enhance the balance for workflows.

Sartorius Cubis™ II Analytical Balance, MCA User Interface

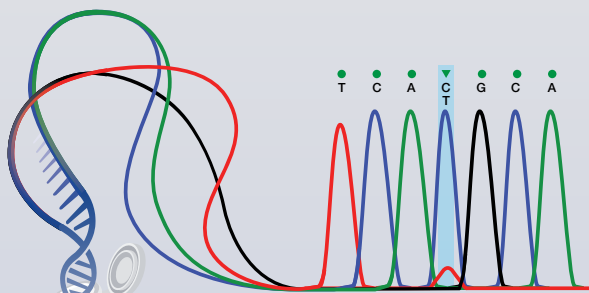
- Monolithic weighing system
- Integrated climate sensors
- Individual sample holders
- Error-free operation



With completely configurable hardware, software, and connectivity, Cubis™ II offers a high-performance balance that will align with your unique demands and compliance requirements.

Cat. No	Description	Includes	Pack qty
16432915	Draft shield A - Motorized	Balance, Accessories, Power supply, Manual, Factory test report	1
16263182	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16283182	Draft shield U - Manual glass	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16320534	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report	1
16243202	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16444065	Draft shield U - Manual glass	Balance, Accessories, Power supply, Manual, Factory test report	1
16263202	Draft shield U - Manual glass	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16465135	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report	1
16203222	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16223222	Draft shield U - Manual glass	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16223232	Draft shield I - Motorized with ionizer	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1
16243232	Draft shield U - Manual glass	Balance, Accessories, Power supply, Manual, Factory test report, QP99 Software	1

applied biosystems



Clean Up your Cleanup

With our Applied Biosystems™ cleanup solutions to support your research

Explore the Applied Biosystems™ ExoSAP-IT™ PCR cleanup products and Applied Biosystems™ BigDye™ XTerminator™ sequencing cleanup products for higher efficiency with your sanger sequencing workflow.

Applied Biosystems™ ExoSAP-IT™ PCR

Learn More

Applied Biosystems™ BigDye™ XTerminator™

Learn More

Visit eu.fishersci.com for more information.



Elemental Analysis



Sartorius Minisart™ NML Syringe Filter provides fast and reliable filtration of small to medium volumes, complete with ready-to-connect filter units.

Handy and readily available

Sartorius Minisart™ NML Syringe Filter, Nonsterile

- Handy and readily available
- Easy to use
- Proven quality
- Economical



Provides fast and reliable filtration of small to medium volumes, complete with ready-to-connect filter units. Sartorius Minisart™ NML Syringe Filters, Nonsterile eliminate time consuming preparatory work, such as changing out the filter and cleaning the filtration system.

Cat. No	Pore Size	Color	Outlet Style	Pack qty
10189270	0.2 µm	Blue	Male Luer Lock	500
10281691	0.45 µm High Flow	Yellow	Male Luer Lock	500
10762722	0.8 µm	Green	Male Luer Lock	500
10490293	1.2 µm	Red	Male Luer Lock	500
10598001	5 µm	Brown	Male Luer Lock	500
10024370	0.2 µm	Blue	Male Luer Slip	500
10074390	0.45 µm	Yellow	Male Luer Slip	500



Aqualine™ Solvent designed to meet the needs of the analytical chemist by providing accurate moisture content determination

Water, Ultra Trace Elemental Analysis Grade, Fisher Chemical™

- Evaluated for 65 metal impurities in ppt range
- Also specified for ≤1ppb for chloride, phosphate and sulfate anion impurities
- Packaged in precleaned LDPE bottles to maintain product integrity



Packaged in specially precleaned LDPE bottles to protect product integrity

Cat. No	Capacity	Pack qty
11934391	500ml	1
11924391	1 Litre	1
12038598	2 Litres	1



Sartorius Picus™ the lightweight electronic pipette eases the users workload and provides protection from RSI. Newest technology guarantees accurate and precise results and protection from contamination.

Sartorius PICUS™ Single-Channel Electronic Pipet

- Helps prevent repetitive strain injury (RSI) due to light weight, ergonomic design and electronic tip ejection
- Achieve better, more reliable results with new generation technology and error control system
- Save time with fast one-hand adjustment, a unique built-in microplate tracker and easy programmability
- Variety of pipetting modes in user friendly interface including memory places for favorite programs



Achieve better, more reliable results with new generation technology and error control system. Sartorius PICUS™ Single-Channel Electronic Pipets help prevent repetitive strain injury (RSI) due to lightweight, ergonomic design and electronic tip ejection, and saves time with fast one-hand adjustment with a unique built-in microplate tracker and easy programmability.

Cat. No	Color	Increments	Volume	Pack qty
13223019	Gray	0.02µL	0.2 to 10 µL	1
13233019	Yellow	0.1µL	5 to 120 µL	1
13486358	Orange	0.2µL	10 to 300 µL	1
12645814	Blue	1µL	50 to 1000 µL	1
13263019	Green	5µL	100 to 5000 µL	1
13273019	Red	10µL	500 to 10,000 µL	1



The SeqStudio Starter Kit : everything you need to start working

Applied Biosystems™ SeqStudio™ Starter Kit for SeqStudio™ Genetic Analyzer

This is the Starter Kit that is recommended for purchase with the SeqStudio.



The SeqStudio system gives you the same data quality, reliability, and support you have come to expect from the Applied Biosystems brand with a modernized experience

Cat. No	Description	Pack qty
15829886	SeqStudio™ Starter Kit, For SeqStudio™ Genetic Analyzer	1



Access, analyze, and share data anytime, anywhere. Remotely monitor your runs, analyze sophisticated data sets in minutes, store data in a secure space, and share results online with colleagues across institutions and around the world

Applied Biosystems™ QuantStudio 5 Package



- 96-well thermal blocks: either 0.1 mL or 0.2 mL well volume or 384-well thermal blocks
- Half day or full day SmartStart orientation training
- Without PC as a stand alone unit with touch screen, or an additional laptop or tower PC to fit the labs needs
- Selection of additional warranty cover depending on the users needs

With built-in security features, locked workflows, user account management and options for web browser-based or desktop analysis, the QuantStudio 5 Real-Time PCR System helps connect you to your data more easily than ever before and offers uncompromising performance and quality.

Cat. No	Includes	Thermal Block Formats	Warranty	Pack qty
15751198	PC: Laptop	96 well	1 year manufacturer's + 1 year extended warranty (no planned maintenance)	1
15761198	No PC	96 well	1 year manufacturer's + 1 year extended warranty (no planned maintenance)	1
15771198	PC: Tower	96 well	1 years manufacturer's + 1 year extended warranty (no planned maintenance)	1
15701208	PC: Tower	96 well	1 years manufacturer's + 1 years extended warranty (1 planned maintenance)	1
15771208	PC: Laptop	96 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15781208	No PC	96 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15791208	PC: Tower	96 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15701218	PC: Laptop	384 well	1 year manufacturer's + 1 year extended warranty (no planned maintenance)	1
15711218	PC: Laptop	384 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15721218	No PC	384 well	1 year manufacturer's + 1 year extended warranty (no planned maintenance)	1
15751268	No PC	384 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15731218	PC: Tower	384 well	1 year manufacturer's + 1 year extended warranty (no planned maintenance)	1
15741218	PC: Tower	384 well	1 year manufacturer's + 3 year extended warranty (no planned maintenance)	1
15771228	PC: Laptop	96 well FAST	1 year manufacturer's + 1 year Field Service repair (no planned maintenance)	1
15781228	No PC	96 well FAST	1 year manufacturer's + 1 year Field Service repair (with 1 planned maintenance)	1
15791228	PC: Tower	96 well FAST	1 year manufacturer's + 1 year Field Service repair (no planned maintenance)	1
15701238	PC: Laptop	96 well FAST	1 year manufacturer's + 3 year Field Service repair (no planned maintenance)	1
15711238	No PC	96 well FAST	1 year manufacturer's + 3 year Field Service repair (no planned maintenance)	1
15721238	PC: Tower	96 well	1 year manufacturer's + 3 year Field Service repair (no planned maintenance)	1
15741238	PC: Tower	96 well FAST	1 year manufacturer's + 3 year Field Service repair (with 1 planned maintenance/Year)	1
15751238	PC: Laptop	96 well FAST	1 year manufacturer's + 1 year Field Service repair (with 1 planned maintenance)	1
15761238	PC: Laptop	96 well FAST	1 year manufacturer's + 3 year Field Service repair (with 1 planned maintenance/Year)	1

Applied Biosystems™ QuantStudio 5 Package Continued

Cat. No	Includes	Thermal Block Formats	Warranty	Pack qty
15781238	No PC	96 well FAST	1 year manufacturer's + 3 year Field Service repair (with 1 planned maintenance/Year)	1
15701248	PC: Laptop	96 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1
15711248	No PC	96 well	1 year manufacturer's + 1 years extended warranty (1 planned maintenance)	1
15721248	No PC	96 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1
15741248	PC: Laptop	384 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1
15751248	No PC	384 well	1 year manufacturer's + 1 years extended warranty (1 planned maintenance)	1
15761248	No PC	384 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1
15701258	PC: Tower	96 well FAST	1 year manufacturer's + 1 year Field Service repair (with 1 planned maintenance)	1
15711258	PC: Tower	96 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1
15721258	PC: Tower	384 well	1 year manufacturer's + 1 years extended warranty (1 planned maintenance)	1
15731258	PC: Tower	384 well	1 year manufacturer's + 3 year extended warranty (with 1 planned maintenance/Year)	1



Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis

Applied Biosystems™ SeqStudio™ Genetic Analyzer System with SmartStart



- The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis
- Combining an extended warranty with your system purchase helps to extend the life of your investment. These packages include the system, SmartStart, and an extended warranty.
- Simplified instrument software with interactive touch screen for greater ease of use
- Minimized hands-on setup time with integrated reagents cartridge (SeqStudio Cartridge)

The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis.

Cat. No	Description	Pack qty
16892250	The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis	1
15925322	The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis	1



Elemental Analysis



The Applied Biosystems™ QuantStudio™ Absolute Q™ Digital PCR System combines the power of digital PCR (dPCR) absolute quantification with the simplicity of a qPCR workflow

Applied Biosystems™ QuantStudio™ Absolute Q Package, including digital PCR system, desktop PC, Smart Start training and one year extended warranty



- Easy and convenient qPCR-like workflow with only five minutes of hands-on time.
- Reduced errors and manual inputs with all functions integrated into a single instrument.
- Accomplish more, faster: Increased productivity with results in as little as 90 minutes.
- QuantStudio Absolute Q Digital PCR software enables intuitive setup, monitoring, and analysis.

The Applied Biosystems™ QuantStudio™ Absolute Q™ Digital PCR System combines the power of digital PCR (dPCR) absolute quantification with the simplicity of a qPCR workflow. With a single hands-on step that takes five minutes to complete, dPCR is now easier than ever.

Cat. No	Includes	Pack qty
17417823	Digital PCR System, desktop PC, Smart Start training and 1 Year extended warranty	1



Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis

Applied Biosystems™ SeqStudio™ Genetic Analyzer System with SmartStart



- The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis
- Combining an extended warranty with your system purchase, Help extend the life of your investment. These packages include the system, SmartStart, and an extended warranty.
- Simplified instrument software with interactive touch screen for greater ease of use
- Minimized hands-on setup time with integrated reagents cartridge (SeqStudio Cartridge)

The Applied Biosystems SeqStudio Genetic Analyzer is a 4-capillary, fluorescence-based capillary electrophoresis system designed to provide users with an integrated experience that is easy, efficient, and versatile for research in genetic analysis.

Cat. No	Description	Pack qty
16834580	SeqStudio System, SmartStart and 3 years extended warranty	1



Honeywell's TraceSelect™ solvents and reagents are supplied in high-quality leach-resistant bottles to ensure long-term purity

Nitric Acid 68% d=1.42, Primar Plus™, for Trace Metal Analysis, Fisher Chemical™

HNO₃, CAS Number 7697-37-2, Nitric Acid, Mol Wgt 63.012 g/mol, MDL No. 11349, InChI Key GRYLNZFGIOXLOG-UHFFFAOYSA-N, Melting Point -41°C, HDPE plastic bottle.



Cat. No	Capacity	Pack qty
10456463	500mL	1
10149982	1 Litre	1
10098862	2.5 Litres	1



Vital for identifying trace contaminants

Sodium chloride, TraceSELECT™, for trace analysis, ≥99.999% (metals basis), Honeywell Fluka™

Sodium chloride, TraceSELECT™, for trace analysis, ≥99.999% (metals basis), Honeywell Fluka



Cat. No	Capacity	Pack qty
16635853	500g	1



Aqualine™ Solvent designed to meet the needs of the analytical chemist by providing accurate moisture content determination

Nitric Acid 67-69%, Trace Metal™, for Trace Metal Analysis, Fisher Chemical™

- Nitric acid 67-69%

HNO₃, CAS Number-7697-37-2, 500mL, Yellow, 63.02g/mol, -41 deg.C, 11349, Liquid, 0.94kPa (20 deg.C)



Cat. No	Capacity	Pack qty
11395780	500ml	1
11395800	2.5 Litres	1



For consistent, reproducible performance in the mobile phase of LC-MS

Water, Optima™ LC/MS Grade, Fisher Chemical™

- H₂O

Water, H₂O, CAS Number-7732-18-5, dihydrogen monoxide, dihydrogen oxide, 1L, <-0.005 AU at 280nm, <-0.005 AU at 260nm, <-0.005 AU at 254nm, <-0.01 AU at 210nm, <-0.01 AU at 230nm, <-0.01 AU at 240nm, <-0.01 AU at 220nm, 10 ppb max., 100 deg.C, 20 ppb max.



Cat. No	Capacity	Pack qty
10095164	500ml	1
10728098	1 Litre	1
10505904	2.5 Litres	1
11947199	4 Litres	1



Fisher Chemical Primar Plus grade for routine trace elemental analysis by AAS instrumentation

Nitric Acid 68% d=1.42, Primar Plus™, for Trace Metal Analysis, Fisher Chemical™

- Nitric acid (>= 68%)

HNO₃, CAS Number-7697-37-2, 2.5L, CHEBI:48107, Yellow, 63.02g/mol, GRYLNZFGIOXLOG-UHFFFAOYSA-N, nitric acid, -41 deg.C, 11349, 63.012, HDPE plastic bottle



Cat. No	Capacity	Pack qty
10456463	500ml	1
10149982	1 Litre	1
10098862	2.5 Litres	1



Fisher Chemical Gradient HPLC solvents helping you to achieve maximum performance in routine Liquid Chromatography

Water, HPLC for Gradient Analysis, Fisher Chemical™

- Water

HPLC for Gradient Analysis



Cat. No	Capacity	Pack qty
10367171	1 Litre	1
10449380	2.5 Litres	1



Dissolution Testing



Dissolution testing is a requirement for all solid oral dosage forms and is used throughout drug development for product release and stability testing. It is a critical analytical test used for detecting physical changes in an active pharmaceutical ingredient and formulated product.

Filtration is key as it stops the dissolution process and separates the dissolved drug from the undissolved drug and excipients. Filtration effectively freezes the sample state, making sure it accurately represents a single and specific time point during dissolution.



Automated dissolution sample filtration for increased productivity. Ensures simple and smooth filter transport. The Roby validation kit simplifies filter media selection.

Cytiva Whatman™ 25mm Roby™ Syringe Filters



- Filter housing is made from mechanically stable polypropylene
- Available with a variety of membrane types; including integrated glass fiber prefilter for difficult samples
- External geometry of filter housing ensures simple, smooth filter transport from the storage turntable to the filtration site and easy filter changing
- Suitable for use with Sotax, Caliper, Zymark and Varian tablet testers

Developed specifically for automated sample filtration systems. Whatman™ Roby™ 25mm Syringe Filters are optimized for main tablet testing instruments.

Cat. No	Material	Pore Size	Pack qty
11333375	Glass Fiber	1 µm	1000
11343375	Glass Fiber	1 µm	200
11363375	Nylon	0.45 µm	1000
11373375	Nylon	0.45 µm	200
11353375	Nylon Glass Fiber	0.45 µm	1000
11919227	Nylon Glass Fiber	0.45 µm	200
11303385	Regenerated Cellulose	0.45 µm	1000
11929227	Regenerated Cellulose Glass Fiber (RC-GF)	0.45 µm	1000
11959187	Regenerated Cellulose Glass Fiber (RC-GF)	0.45 µm	200
11949227	Cellulose Acetate with Glass Fiber	0.45 µm	200
11323375	Glass Fiber	0.7 µm	200
11313375	Glass Fiber	0.7 µm	1000

You may also be interested in:

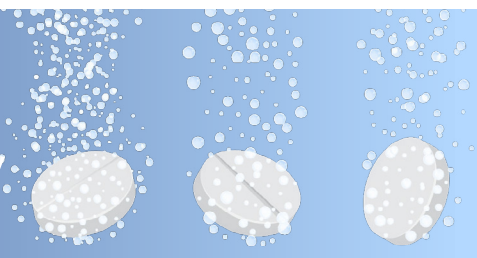


Refer to pages 4, 7 to 10

For more Syringe Filters that appear in Sampling & Storage and Elemental Analysis sections.

[Go to Page >](#)

How the Right Filter can Save Pharma Laboratories Time and Money



Good sample preparation

Drug dissolution testing is a routine QC test that assesses the batch-to-batch consistency of tablets, pills, and capsules before market release. Scientists also use it in drug development to predict *in vivo* behaviour and develop release profiles of different formulations.

Scientists determine the amount of API dissolved at different times by withdrawing samples from the dissolution vessel at pre-defined time stamps.

Filtration stops the dissolution process by screening out the undissolved drug particles and any excipients, ensuring an accurate representation of that single and specific time point during dissolution. This enables sample analysis to occur to determine the amount of drug dissolved.

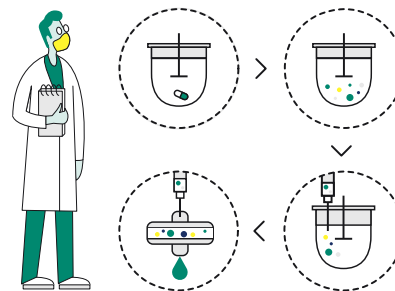
Filtration, either through cannula filters at the tip of sample probes, glass filter circles, or via in-line syringe-type membranes, is key in sample preparation.

[Learn More](#)

Selecting the right filter membrane or media

What are the main considerations when matching the right membrane or media to the sample preparation workflow in hand?

- Choose a depth filter containing only glass fibre when the dissolution media contains a large amount of coarse particulates.
- Choose a membrane filter when the number of coarse particulates in the dissolution media is low.
- Choose a combined depth and membrane filter when a standard depth filter does not provide a clear filtrate and/or a membrane filter gets clogged.



Cytiva can help, lets talk



Ensure Traceability and Quality with SureTRACE Products

[Learn More](#)



Electrochemical Analysis



Monitoring and controlling pH is critical in biopharmaceutical manufacturing. In upstream applications – cell cultivation, cell culture and cell harvest - extracellular pH must be optimized and controlled as it affects cell physiology, protein expression and quality and cell differentiation. In downstream applications – clarification, purification and concentration - pH (as well as ionic strength) is a key property within the buffered mobile phase that has a critical impact on product recovery and purity. In addition, pH must be carefully monitored during the formulation process prior to fill/finish operations.



Get high accuracy, premium performance and ultimate flexibility with the Thermo Scientific™ Orion™ Versa Star Pro™ Benchtop pH Meter. Meet your most challenging applications for pH, mV, ORP and temperature.

You may also be interested in:

Thermo Scientific™ Orion™ Versa Star Pro™ Conductivity Benchtop Meter



- Onscreen measurement stability indicator lets you know exactly when your measurements are ready.
- Selectable read modes include Auto-Read to hold a stable reading. Continuous to show changing readings, timed to log data at specific intervals and Single-Shot to hold a reading after a specific wait time is reached.
- Audible alarms automatically notify you when a set offset value, high/low limit value and calibration time interval are reached.
- Easily access, update and switch your preferred measurement settings, using 10 password-protected methods per channel.

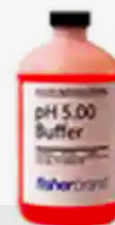
Get high accuracy, premium performance and ultimate flexibility with this conductivity benchtop meter designed for conductivity, total dissolved solids (TDS), salinity, resistivity and temperature.

Cat. No	Includes	Pack qty
15611727	Versa Star Pro meter, VSTAR-CND conductivity module, 013016MD Orion pure water (K=0.1) conductivity sensor with flow-cell, 011008 Orion 100 µS conductivity standard, electrode stand, universal power adapter, literature CD, printed quick start guide, computer interface cable and meter test certificate	1
11631499	Versa Star Pro meter, VSTAR-CND conductivity module, electrode stand, universal power adapter, literature CD, printed quick start guide, computer interface cable and meter test certificate	1
11641499	Orion Versa Star Pro meter, VSTAR-CND conductivity module, 013005MD Orion DuraProbe 4-cell (K=0.475) conductivity sensor, 011007 Orion 1413µS conductivity standard, electrode stand, universal power adapter, literature CD, printed quick start guide, computer interface cable and meter test certificate	1



Probes and Electrodes

[Learn more >](#)



Buffers and standards

[Learn more >](#)



Perform accurate, reproducible pH calibrations with pH buffer solutions from Honeywell Fluka™



Honeywell Fluka™ pH buffers - consistency, purity and accuracy assured

Buffer solution pH 9.180 (25°C), With fungicide, according to DIN 19266, Honeywell Fluka™



With fungicide, according to DIN 19266

- Leading the industry for over 65 years
- Honeywell now delivers Fluka™ premium grade inorganic reagents worldwide – with consistency, purity, and accuracy assured

Buffer solution pH 7.413 (25°C), With fungicide, according to DIN 19266, Honeywell Fluka™



With fungicide, according to DIN 19266

- Leading the industry for over 65 years
- Honeywell now delivers Fluka™ premium grade inorganic reagents worldwide – with consistency, purity, and accuracy assured

Cat. No	Capacity	Pack qty
15614020	1 Litres	1

Cat. No	Capacity	Pack qty
15634020	1 Litres	1



Spex Assurance Grade Single Element ICP CRMs are designed for ICP analyses in a range of concentrations and sizes. Features include use of high-quality water, acids, and raw materials with direct traceability to NIST.



Pharmacopoeia buffer solutions suitable for use as reference and calibration standards for measuring pH values

Magnesium Standard Single Element Ion Standard - Cation, SPEX CertiPrep™



Inorganic standard manufactured for AA, ICP, ICP/MS, IC, XRF, and other analytical instrumentation

Up to 68 elements are scanned with found values for ICP and ICP-MS standards. The found value of the trace metallic impurities is reported on the Certificate of Analysis.

Citrate buffer solution, pH 7.8 EU Pharmacopoeia, Fisher Chemical™



Pharmacopoeia reagents are intended for use in pharmacopoeia testing and monographs, produced under a GMP compliant ISO 9001 quality management system according to the relevant pharmacopoeia specification, using the pharmacopoeia reagent quality components and water meeting the relevant pharmacopoeia monograph requirement for purified water. Some pharmacopoeia standards are also accredited according to ISO 17025 and ISO Guide 43.

Cat. No	Capacity	Pack qty
10345052	125mL	1

Cat. No	Capacity	Pack qty
12990724	1 Litres	1



Get Same-Day Dispatch

on Our Most Popular Products

[Learn More >](#)



Click on a product to access a full detailed product selection

eu.fishersci.com/go/analysis-qc

Spectroscopy

UV-Visible spectroscopy is a well-established analytical technique used in the pharmaceutical industry for testing in research and quality control stages of drug development. Its uses include qualifying impurities in drug ingredients and drug products, performing tests to confirm the chemical identity and qualify the purity of drugs and drug ingredients, as well as being the traditional method for analyzing the results of dissolution testing of solid oral dosage forms like tablets.



Combine innovative technology with compact design for accurate results. Thermo Scientific™ Orion™ AquaMate™ Spectrophotometers feature one-point calibration to ensure the highest accuracy from pre-programmed methods.



Remove the burden of manually diluting your samples to stay within the linear range of your spectrophotometer by using the DC10 which virtually dilutes samples 1:10, removing manual labour and potential errors

Thermo Scientific™ Orion™ AquaMate Vis and UV-Vis Spectrophotometers

- More than 260 preprogrammed methods offer easy and convenient measurements using Orion AQUAfast™, Merck™ or CHEMetrics™ chemistries
- Preprogrammed methods can also be adapted for new chemistries or operators can create their own custom methods and calibration curves
- Instruments allow a one-point adjustment on any preprogrammed method to correct for variations in batch reagent chemistries
- Versatility:
- Glove friendly 178mm touch screen controller



Optimized for your water analysis needs AquaMate 7100 Vis and AquaMate 8100 UV-Vis Spectrophotometers provide fast and reliable results

Implen™ DiluCell™ 10 - Disposable Cuvette

Implen DiluCell™ 10 provides an automatic 1/10 dilution of higher concentrated samples for standard 1 cm cuvette spectrophotometers. Combined with low sample volume requirements and bubble free filling, the DiluCell™ allows for convenient spectrophotometric analysis from 340-1100 nm.



- Low sample volume necessary
- Suitable for proteins and microbial cell cultures
- Measurement possible starting at 340 nm
- Automatic dilution of factor 10 and factor 20

Cat. No	Description	Capacity (Metric)	Path Length	Pack qty
15725805	1/10 Dilution	200 µL	1.0 mm	96

Cat. No	Includes	Pack qty
17143841	Test Tube Holder for vials and test tube from 12 to 25 mm OD, AquaMate Water Analysis Methods Software, Dust Cover, External Power Supply, North America power cable (NEMA 5-15), European power cable (CEE 7/7), UK Power cable (BS 1362).	1
16439835	Test Tube Holder for vials and test tube from 12 to 25 mm OD, 10 mm square single-cell holder, AquaMate Water Analysis Methods Software, Snap-on Printer, Dust Cover, External Power Supply, North America power cable (NEMA 5-15), European power cable (CEE 7/7), UK Power cable (BS 1362).	1
17314773	Test Tube Holder for vials and test tube from 12 to 25 mm OD, 10 mm square single-cell holder, AquaMate Water Analysis Methods Software, Snap-on Printer, Dust Cover, External Power Supply, China power cable (PRC/3), India power cable (SABS 164), Australia power cable (AS/NZS 3112).	1



The smallest and smartest drop & cuvette spectrophotometer Made in Germany for the quanti and qualification of nucleic acids, proteins, small molecules etc. LIMS integration and 21 CFR part 11 compliance available.



The smallest and smartest drop & cuvette spectrophotometer Made in Germany for the quanti and qualification of nucleic acids, proteins, small molecules etc. LIMS integration and 21 CFR part 11 compliance available.

Implen™ NanoPhotometer™ NP80 Nano-Volume and Cuvette UV-VIS Spectrophotometer



The Implen NanoPhotometer™ NP80 UV/Vis spectrophotometer for NanoVolume and cuvette applications. Quantify DNA, RNA, proteins and scan other samples within seconds.

- Detection range dsDNA 1 ng/μL - 16,500 ng/μL
- Detection range BSA 0.03 mg/mL - 478 mg/mL
- Minimum sample Size 0.3 μL
- Scan range 200 - 900 nm

Cat. No	Model	Includes	Pack qty
15485824	Implen™ NP80-TOUCH	Power Supply, USB Cable, Dust Cover, Software & Manual	1
15512465	Implen™ NP80-MOBILE	Battery, Power Supply, USB Cable, Dust Cover, Software & Manual	1

Implen™ NanoPhotometer™ N120 Multichannel Micro-Volume UV-VIS Spectrophotometer



The Implen NanoPhotometer™ N120 scans up to 12 samples in just 20 seconds. Quantifying DNA, RNA and proteins has never been faster. Intuitive touchscreen operation, small footprint and network integration for convenient lab bench operation. Recalibration-free patented technology Made in Germany.

- Sample number 1 - 12
- Detection range dsDNA 2 ng/μL - 8,000 ng/μL
- Detection range BSA 0.06 mg/mL - 230 mg/mL
- Minimum sample Size 2.0 μL

Cat. No	Model	Pack qty
15485824	Implen™ N120-TOUCH	1
15512465	Implen™ N120-MOBILE	1



Upgrade your NanoPhotometer NP80 to meet FDA 21 CFR part 11 regulations. Including audit trail, electronic signature, protected user accounts and different access levels – all in a stand-alone device.



Upgrade your NanoPhotometer N120 to meet FDA 21 CFR part 11 regulations. Including audit trail, electronic signature, protected user accounts and different access levels – all in a stand-alone device.

Implen NP80 21 CFR Part 11 software package for the NanoPhotometer NP80 including IQ/OQ package



NP80 21 CFR Part 11 software package for the NanoPhotometer NP80 including IQ/OQ package

Cat. No	Description	Pack qty
17720248	NP80 21 CFR Part 11 software package for the NanoPhotometer NP80 including IQ/OQ package	1

Implen N120 21 CFR Part 11 software package for the NanoPhotometer N120 including IQ/OQ package



N120 21 CFR Part 11 software package for the NanoPhotometer N120 including IQ/OQ package

Cat. No	Description	Pack qty
17750248	N120 21 CFR Part 11 software package for the NanoPhotometer N120	1



Get Same-Day Dispatch

on Our Most Popular Products

[Learn More >](#)



Electrochemical Analysis



Thermo Scientific™ Evolution™ UV-Vis Spectrophotometers combine reliable and versatile hardware with easy-to-learn, easy-to-use Thermo Scientific™ Insight™ Pro Software. Together they will meet the diverse needs your organization requires from an analytical tool.

Thermo Scientific™ Evolution™ One/One Plus UV-Vis Spectrophotometers



- Double-beam geometry with fixed 1 nm or variable spectral bandwidth options
- Application Focused Beam Geometry (AFBG) technology enables the best performance from microcells, solid samples, and fiber optic probes (Evolution One Plus Only)
- Xenon flash lamp requires no warm-up time allowing instant measurements
- Meet chemical, materials science, or biological sampling and measurement needs with a broad range of accessories

For routine, complex research and advanced applications, including current compliance, the Thermo Scientific™ Evolution™ One/One Plus UV-Vis Spectrophotometer series brings together reliable, versatile hardware, a broad range of accessories, with easy-to-use, easy-to-learn Thermo Scientific™ Insight™ Pro Software.

Cat. No	Description	Pack qty
17329263	Evolution One UV-Vis Spectrophotometer	1
17339263	Evolution One Plus UV-Vis Spectrophotometer	1
17435603	Evolution One Security and Validator Bundle includes: • Evolution One UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator for Insight Pro A4 Paper Version • Qualification Filter Kit for UV-Vis	1
17445603	Evolution One USP/EP Standards Pharma Bundle includes: • Evolution One UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator Documentation A4 Paper Version • USP and EP UV Standards Set • USP and EP Visible Standards Set	1
17329263	Evolution One Plus USP/EP Standards Pharma Bundle includes: • Evolution One Plus UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator Documentation A4 Ltr Paper Version • USP and EP UV Standards Set • USP and EP Visible Standards Set	1



Optional validation installation for regulated labs

ULS Unity Lab Services THERMO UV VIS_ Validated Installations Evol One Series



Optional validation installation for regulated labs

Cat. No	Description	Pack qty
17467123	THERMO UV VIS_Validated Installation Evol One Series	1
17467133	THERMO UV VIS_Validated Installation Evolution Pro	1
16641193	THERMO UV VIS_21 CFR security software installation for UV Vis instrument	1



Thermo Scientific™ Evolution™ UV-Vis Spectrophotometers combine reliable and versatile hardware with easy-to-learn, easy-to-use Thermo Scientific™ Insight™ Pro Software. Together they will meet the diverse needs your organization requires from an analytical tool.

Thermo Scientific™ Evolution™ One/One Plus UV-Vis Spectrophotometers



- Rely on the double beam optical design providing outstanding reliability, precision performance, and long-term stability for the most demanding applications.
- Optimized performance for advanced testing requirements and peak resolution capabilities with selectable bandwidths of 0.5, 1.0, 1.5, 2.0 and 4.0 nm.
- Ensure accuracy of your data with optional Calibration Validation Carousel (CVC) for automated performance verification.
- Get instant measurements and excellent performance over entire wavelength range of 190-1100 nm with xenon flash lamp.

For routine, complex research and advanced applications, including current compliance, the Thermo Scientific Evolution Pro UV-Vis Spectrophotometer series brings together reliable, versatile hardware, a broad range of accessories, with easy-to-use, easy-to-learn Thermo Scientific Insight Pro Software.

Cat. No	Description	Pack qty
17309263	Evolution Pro UV-Vis Spectrophotometer with Mercury lamp	1
17319263	Evolution Pro UV-Vis Spectrophotometer	1
17485603	Evolution Pro Pharma Value Bundle include: • Evolution Pro w/Mercury Lamp UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator for Insight Pro A4 Paper Version • Qualification Filter Kit for UV-Vis	1
17495603	Evolution Pro USP/EP Standards Pharma Bundle include: • Evolution Pro w/ Mercury Lamp UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator for Insight Pro A4 Paper Version • USP and EP UV Standards Set • USP and EP Visible Standards Set	1
17405613	Evolution Pro Pharma Value Bundle include: • Evolution Pro UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator for Insight Pro A4 Paper Version • Qualification Filter Kit for UV-Vis	1
17415613	Evolution Pro USP/EP Standards Pharma Bundle include: • Evolution Pro UV-Vis Spectrometer • INSIGHT Pro with Security Software • Validator for Insight Pro A4 Paper Version • USP and EP UV Standards Set • USP and EP Visible Standards Set	1

Other Physical Measurements

Physical testing is carried out at all stages of production to verify that the drug can proceed to the next stage and is able to be released in accordance with the regulations and specifications required for consumption. These tests analyse the product's colour, particle size, hardness, density, pH to name a few.

In this section explore the Fisher Scientific channel range of turbidimeters and colourimeters used for determination of impurities and to monitor product quality as well as stability chambers for drug substance and product storage testing.



The AQUAfast AQ4500 turbidimeter is one of the most advanced portable microprocessor based LED turbidimeters on the market today and is the only advanced completely waterproof turbidimeter with a rating of IP67.



The rugged, waterproof design of the Thermo Scientific™ Orion™ AQUAfast™ AQ3170 colorimeter makes it ideal for laboratory use when measuring free and total chlorine in the range of 0.02 to 2.00 mg/L, or 0.1 to 8.00 mg/L

Thermo Scientific™ Orion™ AQ4500 Turbidimeter

- U.S. EPA approval for Drinking Water Reporting per 40 CFR Part 141, vol. 74, no. 147, Monday, August 3, 2009. Rules and regulations pg. 38351-38356
- Dual source to comply with EPA 180.1 and ISO 7027
- Nephelometric and ratiometric measurements with autoranging
- IP67 waterproof portable turbidity meter



Utilize dual LED light sources and drinking water/wastewater methods approved for U.S. EPA regulatory reporting offered by this turbidity meter.

Cat. No	Description	Pack qty
10550753	Turbidimeter and Calibration Kit	1
10672853	RS232 cable for method uploads and data downloads in AQ4000/AQ4500	1

Thermo Scientific™ Orion™ AQUAfast™ AQ3170 Colorimeter

- Convenient scroll-driven menu system
- Automatic switch-off
- 16-point internal automatic data storage with date/time stamp
- Easy-to-read, backlit display



Gather accurate chlorine measurements with a colorimeter designed for both the laboratory and the field in markets such as drinking water, wastewater, food & beverage, aquaculture, and agriculture.

Cat. No	Description	Pack qty
15904002	AQUAfast 10mm short path-length plastic vials for high level chlorine, 12 pack	1
15971352	AQUAfast AQ3170 Chlorine Colorimeter	1
15984002	AQUAfast chlorine primary standard kit to prepare 1.5 mg/L NIST-traceable chlorine standard	1
15994002	AQUAfast chlorine secondary standards (0.0, 0.20 and 1.0 mg/L chlorine) for AQ3170 colorimeter	1



Other Physical Measurements



Thermo Scientific Stability Chambers are the ideal choice to meet compliance standards for ICH, FDA, TAPPI, ASTM, or national testing standards when controlled temperature and humidity are required.



Offers precise temperature control, increased energy efficiency, and ease of usability. Equipped with Peltier technology to reach and maintain the precise ambient temperatures you need for reliable results.

Thermo Scientific™ Forma™ Environmental Chamber Model 3949, 821.2 L, Stainless Steel

- Wide temperature range of 0° to 60°C that enhances the flexibility of the unit
- Relative humidity control via steam generator from above ambient to 95% at 37°C (not available w/Cat. No. 3920)
- Sophisticated digital controls
- Programmable ramp and soak cycles for temperature and RH†



Temperature Range: 0°C to 60°C; Relative Humidity (RH): <95% at 37°C; Light: Interior Lighting

Cat. No	Description	Pack qty
15233823	Perform a variety of applications with Thermo Scientific™ Forma™ environmental chambers, which can be configured for a variety of purposes and are available in multiple capacities. With a wide range of accessories and years of experience in constructing cabinets, we can construct units to match your most stringent applications.	1

Thermo Scientific™ Heratherm™ Refrigerated Incubators

- Temperature range 5- 70°C
- Available in 2 sizes: benchtop model 178L / 6.3 cu.ft. and a floor model with casters 381L / 13.5 cu.ft.
- Great temperature uniformity and stability to keep the samples in a safe environment -> uniformity as low as +/-0.3°C (20°C), stability as low as +/-0.1°C
- Energy consumption as low as 80Wh/h(benchtop) / 150Wh/h (floorstanding) at 20°C - Note that comparable compressor cooled units consume up to 6 times this amount*



Achieve untapped potential in incubation with the temperature precision you need for applications that demand it. With a temperature range of +5 to +70°C, Thermo Scientific™ Heratherm™ Refrigerated Incubators are equipped with Peltier technology to reach and maintain the precise ambient temperatures you need for reliable results. With no hazardous refrigerants, these units use less energy than the conventional product, making it the ideal choice for energy-conscious labs.

Cat. No	Description	Capacity	Pack qty
15662079	Heratherm refrigerated incubator IMP400, w/ electrical outlet, 230V, 50/60Hz	1L	1
15689408	Heratherm refrigerated incubator IMP400, w/ electrical outlet, 230V, 50/60Hz	178L	1

Ensure Traceability and Quality with SureTRACE Products

[Learn More](#)





Visit eu.fishersci.com for more information.

Distributed by Fisher Scientific. Contact us today:

Austria: fishersci.at **Belgium:** fishersci.be **Denmark:** fishersci.dk
Germany: fishersci.de **Ireland:** fishersci.ie **Italy:** fishersci.it
Finland: fishersci.fi **France:** fishersci.fr **Netherlands:** fishersci.nl
Norway: fishersci.no **Portugal:** fishersci.pt **Spain:** fishersci.es
Sweden: fishersci.se **Switzerland:** fishersci.ch **UK:** fishersci.co.uk

© 2022 Thermo Fisher Scientific Inc. All rights reserved.
Trademarks used are owned as indicated at fishersci.com/trademarks.

 **fisher scientific**
part of Thermo Fisher Scientific