

CHRODEX

LABORATORY



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 **CHRODEX**
SCIENCE HAS NO LIMITS

Our customers are in the areas of:

- Agriculture
- Biotechnology Industries
- Clinical Research Organization
- Chemicals Industries
- Cleaning and maintenance products
- Electronics industry
- Environmental Labs
- Food Industries
- Hygiene and beauty articles
- Medicines and cosmetics
- Medical Institutions
- Pesticides Industries
- Pharmaceutical Colleges
- Pharmaceuticals - basic and auxiliary
- Petrochemical Industries
- Petroleum - heavy derivative
- Pharmaceutical Industries
- Research Centers & Universities
- Veterinary Industry

CHRODEX is a company with vast experience in the laboratory and industrial sector. The company was founded in Weilheim, Upper Bavaria- Germany. Our service include trade in laboratory consumables, medical and microbiology products, laboratory instruments, chemicals, pharmaceutical equipment, industrial automtion, to the planning, establishment and equipment of complete laboratories and hospitals.

We serve our international customers with all the products of the world's major manufacturers at Chromatography and Analytics and industry needs

For continue questions and informations,
we are looking forward to your contact.

Thank you

CHRODEX

EGYPT OFFICE (Head Office)

CHRODEX

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Tel. +49(0)881 901 1092
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WE OFFER OUR CUSTOMERS ALL ANALYTICS NEEDS FROM LEADING MANUFACTURERS WORLDWIDE

 <p>Agilent Technologies</p> <p>AGILENT</p>	 <p>AkzoNobel</p> <p>AKZONOBEL</p>	 <p>Abel Industries®</p> <p>ABEL INDUSTRIES</p>	 <p>ADVANTEC®</p> <p>ADVANTEC</p>	 <p>A&D Discover Precision</p> <p>A&D INSTRUMENT</p>
 <p>ACE HPLC & UHPLC Columns</p> <p>ACE</p>	 <p>ATAGO®</p> <p>ATAGO</p>	 <p>BANDELIN Ultraschall seit 1955</p> <p>BANDELIN</p>	 <p>BÜCHI SWITZERLAND</p> <p>BÜCHI</p>	 <p>LABORBEDARF BOCHEM® LAB SUPPLY</p> <p>BOCHEM</p>
 <p>BINDER Best conditions for your success</p> <p>BINDER</p>	 <p>Brookfield</p> <p>BROOKFIELD</p>	 <p>BRAND®</p> <p>BRAND</p>	 <p>BIO-RAD</p> <p>BIO RAD</p>	 <p>BECKMAN COULTER Life Sciences</p> <p>BECKMAN</p>
 <p>CAMAG®</p> <p>CAMAG</p>	 <p>CHROMTECH Analytical Instruments</p> <p>CHROMTECH</p>	 <p>CHROMACOL</p> <p>CHROMACOL</p>	 <p>DIONEX</p> <p>DIONEX</p>	 <p>DAICEL</p> <p>DAICEL</p>
 <p>Dr. Maisch</p> <p>DR. MAISCH</p>	 <p>DWK LIFE SCIENCES</p> <p>DURAN</p>	 <p>DIA-NIELSEN</p> <p>DIA-NIELSEN</p>	 <p>eppendorf</p> <p>EPPENDORF</p>	 <p>EDWARDS</p> <p>EDWARDS</p>
 <p>Elma®</p> <p>ELMA</p>	 <p>ERWEKA</p> <p>ERWEKA</p>	 <p>FRITSCH</p> <p>FRITSCH</p>	 <p>GFL</p> <p>GFL</p>	 <p>GL Sciences State-of-the-art HPLC columns</p> <p>GL SCIENCES</p>
 <p>GRACE</p> <p>GRACE</p>	 <p>HI CHROM</p> <p>HI CHROM</p>	 <p>Heraeus</p> <p>HERAEUS</p>	 <p>halo</p> <p>HALO</p>	 <p>HANNA® instruments HANNA. SOMOS CALIDAD</p> <p>HANNA</p>
 <p>Hellma® Analytics</p> <p>HELLMA</p>	 <p>heidolph research made easy</p> <p>HEIDOLPH</p>	 <p>HAMILTON the measure of excellence</p> <p>HAMILTON</p>	 <p>Hettich LAB TECHNOLOGY</p> <p>HETTICH</p>	 <p>ILMVAC</p> <p>ILMVAC</p>
 <p>IKA</p> <p>IKA</p>	 <p>Julabo</p> <p>JULABO</p>	 <p>JASCO</p> <p>JASCO</p>	 <p>JENWAY</p> <p>JENWAY</p>	 <p>KNAUER</p> <p>KNAUER</p>

 LA-PHA-PACK	 LAUDA	 MERCK	 MILLIPORE	 MARIENFELD
 METROHM	 METTELER TOLEDO	 MEMMERT	 MACHEREY-NAGEL	 NALGENE
 PERKIN ELMER	 PHENOMENEX	 PALL	 PHARMA TEST	 RETSCH
 REGIS	 RESTEK	 RHEODYNE	 STUART	 SGE ANALYTICAL
 SHIMADZU	 SHISEIDO	 SHODEX	 SARTORIUS	 SIGMA ALDRICH
 SHINWA	 SYSTEC	 SYKAM	 THERMO	 TOSOH
 VISTALAB	 VACUUBRAND	 VITLAB	 VARIAN	 VELP
 WHATMAN	 WTW	 WATERS	 YMC	 ZIRCHROM

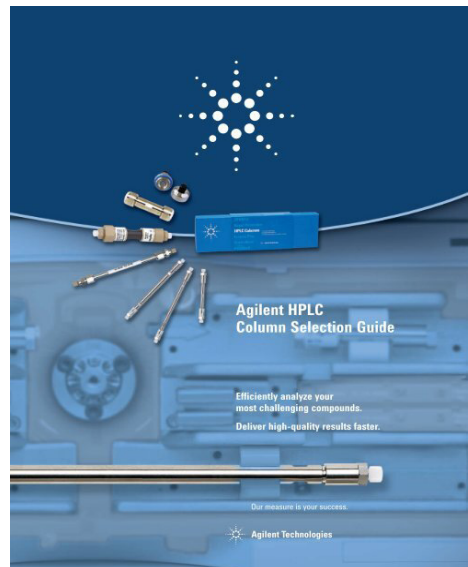
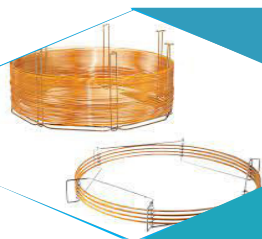
LC Columns Deliver Results for Complex Analytical Challenges

Agilent liquid chromatography (LC) columns deliver reliable, consistent performance in a wide range of analytical LC applications.

We offer LC, HPLC, UHPLC columns and UPLC columns for diverse applications ranging from small molecule separations to biomolecule separations, glycan mapping, protein analysis, and mAb analysis.

Our Poroshell columns lead the industry in selectivity and sensitivity.

We also offer a complete range of LC standards, cartridge column systems, and method development kits.



PrepHT Hardware
ZORBAX PrepHT guard cartridges (17 x 7.5mm) work with the guard hardware kit and fit at the end of 21.2mm PrepHT cartridge columns.

Rapid Resolution and RRHT Cartridge Column System
 The Zorbax Rapid Resolution(3.5 m) and Rapid Resolution HT(1.8 m) Cartridge-Column System provides convenient.

ZORBAX SemiPreparative Guard Column Hardware
 The Zorbax Semi Preparative Guard Column Kit provides convenient costeffective protection for high performance lab-scale.



The **Zorbax** Rapid Resolution (3.5 μm) and Rapid Resolution HT (1.8 μm) Cartridge-Column System provides convenient, cost-effective, high speed liquid chromatographic analyses. The cartridge components assemble quickly and easily to provide a high-efficiency, low dead-volume column. The cartridge-column seals with hand tightening, using perfluoro-elastomer gaskets, at pressures up to 400 bar (6000 psi) and temperatures up to 80 $^{\circ}\text{C}$. The reusable cartridge end fittings adapt the cartridge-column for connection to standard 1/16 in LC fittings. Rapid Resolution and Rapid Resolution HT Cartridges are filled with high performance ZORBAX StableBond and Eclipse bonded phase packings to provide the highest quality separations possible in such short length columns.



GC Columns for Accurate, Reliable Performance Agilent's GC columns help lab analysts maintain the highest standards of performance. Agilent J&W capillary columns deliver industry-leading technology with the highest inertness, lowest bleed levels and tightest column-to-column reproducibility. Our low thermal mass GC columns deliver shorter analytical cycle times than air-bath oven techniques while using less power.

Advanced Chromatography Technologies:

ACE™ ultra-pure base deactivated silica

- Guaranteed Reproducibility
- LC/MS to Preparative Scale Dimensions
- Ultra Inert Base Deactivated HPLC Columns

ACE HPLC columns are designed to meet even the most challenging of chromatographic applications, giving excellent performance with acidic, basic and neutral molecules. A wide range of particle sizes, pore sizes, bonded chemistries and column dimensions are available.

Ultra-high purity, ultra-inert ACE columns also provide unmatched reproducibility and excellent column life time.



As a general rule, retention increases with chain length of the bonded phase. We recommend starting most method development projects with C18 or C8, knowing that if more retention and hence more resolution is needed, starting with C8 offers the benefit of shorter analysis times and/or lower organic solvent use.

The elution order for most compounds will be the same on the aliphatic (C18, C8, C4) phases. If a different elution order is required for compound verification or to resolve matrix components, changing to a phenyl or CN phase may be far simpler than trying to change selectivity by mobile phase or temperature changes. In many cases, the ACE CN and ACE Phenyl phases will offer a significant difference in selectivity from the aliphatic phases.



ACE Preparative HPLC Columns

- Ultra high purity base deactivated silica
- 5, 10 and 15m particle sizes available
- Fully validated columns
- Exceptional reproducibility
- Excellent efficiencies
- High sample recovery
- Excellent column lifetime
- 100Å and 300Å pore sizes.



Capillary and Nano Columns

- Capillary (500m and 300m) and nano (100m and 75m) dimensions
- Wide range of bonded phase available
- 100Å and 300Å pore sizes
- High efficiency, long lifetime and guaranteed reproducibility
- LC/MS and LC/MS/MS applications.



ACE LC/MS and Rapid Analysis Columns

- High performance excellent peak shape for higher sensitivity
- Choice of 13 low bleed phases for complete optimization
- Ultra-inert silica enables MS compatible buffers to be used
- 20mm, 30mm, 35mm and 50mm column lengths
- 1.0, 2.1, 3.0, 4.0 and 4.6mm i.d.s.

Original Kromasil® HPLC-Columns



Kromasil™ by EKA CHEMICALS / Akzo Nobel
 A spherical, totally porous silica-based media developed and optimised for:
 resolution / loadability / chemical stability / mechanical stability. Kromasil Eternity is a platform with grafted organo-silane surface for chromatography with extended chemical stability at any pH between pH 2 and pH 12. A natural choice for the separation of ionic or aromatic substances in various buffer compositions

Kromasil® 60 For NP-Chromatography
 S IL (5 / 7 / 10 / 13 / 16 µm)
 CN (5 / 10 / 16 µm)
 DIOL (5 / 10 µm)

Kromasil® 100 Standard for all Applikations
 SIL (3,5/5/7/10/13/16 µm)
 C4 (3,5/5/7/10/13/16 µm)
 C8 (3,5/5/7/10/13/16 µm)
 C18 (3,5/5/7/10/13/16 µm)
 PHENYL (5/10/16 µm)

Kromasil® 300 for Analytik of Biopolymeren
 S IL (5 / 10 / 16 µm)
 C4 (5 / 10 / 16 µm)
 C8 (5 / 10 / 16 µm)
 C18 (5 / 10 / 16 µm)

Specialised on Bioseparations:
 Aminex™-HPLC columns: packed with a polystyrene divinylbenzene ion exchange resin, separating compounds using the ionmoderated partition chromatography technique using simple isocratic mobile phases.



Carbohydrate analysis columns are ideal for the analysis of beet sugars, molasses, corn syrup, pentose sugars, cellulose hydrolysates, oligosaccharides, glucose, galactose, sucrose, and fructose. Organic acid and alcohol columns are ideal for the analysis of sugars with organic acids, alcohol, glycol, and fermentation monitoring. Applications kits for food analysis are ideal for the analysis of carbohydrates and organic acids. Micro-Guard cartridges extend column life by protecting Aminex columns from degradation caused by particulate matter, irreversibly bound material, and aggressive reagents in the sample or solvent. When resolution begins to degrade, simply replace the spent cartridge .

Daicel chiral columns offer excellent resolution of racemates, rapid and easy method development, plus durability and long service life.

Perhaps as important in today's development environment, our range of chiral columns, catalog of chiral stationary phases (CSPs), and proprietary application database offer a smooth, swift scale-up from discovery through development and pilot systems to commercial-scale production.



CHIRALPAK® and CHIRALCEL®

are well known as chiral chromatography columns. These products are trademarks of Daicel. Inside the chiral columns are chiral resolving agents Chiral Stationary Phases (CSPs).

Daicel commenced the development of these products in the 1980s using our expertise in cellulose chemistry.

CHIRALPAK® and CHIRALCEL®

are available not only as analytical columns and/or small-scale separation, but also for commercial separations. Simulated moving bed (SMB) is a continuous column separation which allows MT scale production. Currently the largest SMB chiral production in the world is >100MT. Recent product developments consist of immobilized CSP, CHIRALPAK® IA, IB, and IC. These allow use of a wider range of chromatographic solvents.

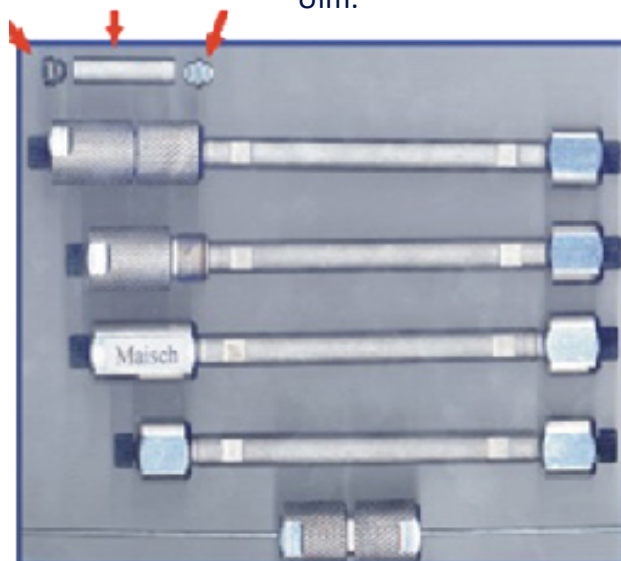
We provide our customers with Dr. Maisch HPLC Columns - Phases other Manufacturers with high competitive prices .

Chiral-AGP (CBH+HSA)	Chromtech-Ltd.
UBondapak	Waters
Capcell	Shiseido
Daicel	Daicel Chemicals Ind.
Eurospher	Knauer
ExSil	Exmere
Hypersil	Hypersil
Kromasil	Akzo Nobel
Lichrosorb	Merck
Lichrospher	Merck
Mikrosorb	Rainin
Nucleosil	Macherey & Nagel
Partisil	Whatman
Poros	Perseptive Biosystems
PRP	Hamilton

Dr. Maisch GmbH

Any Column, Any Size, Any Media

The owner Dr. Maisch has worked with HPLC for over 30 years, beginning in 1980 to isolate new insect hormones from butterflies with the, then very new technique of HPLC at the University of Ulm.





Dionex offers a wide variety of LC, IC, and Bio columns to meet any analytical application.

Chromatographic separations

require appropriate HPLC columns for the specific application. The Dionex Acclaim columns are available packed with reversed-phase, polar embedded phases, as well as specialty phases; and columns optimized for Rapid Separation Liquid Chromatography. Biological separations require unique packing material to achieve high resolution analysis of these compounds.

IC and RFIC Columns

Thermo Fisher Scientific offers a complete line of IC and RFIC™ columns for use with hydroxide, carbonate, and MSA eluents. The Thermo Scientific™ Dionex™ IonPac™ polymeric columns address a variety of chromatographic separation modes including ion exchange, ion exclusion, and reversed-phase ion pairing and ion suppression.

Bio Columns

Biological separations

often require unique chemistry to provide high resolution, high efficiency separations. Dionex offers a variety of columns for proteins, peptides, carbohydrates, nucleic acids, and more.

The Alltech Prevail family consists of reversed-phase and normal phase columns for use with 100% organic to 100% aqueous mobile phases, allowing separation of highly polar analytes in aqueous mobile phases and hydrophobic analytes in organic mobile phases. These columns are made with spherical silica, monomerically bonded and endcapped with a 110Å pore size. Specialty phases available are Carbohydrate ES and Organic Acid. They are available in LC/MS, Expedite®, Rocket®, Solvent Reducer, Analytical and Prep formats. The Alltech Alltima family are high quality general purpose columns. They are made with spherical silica, polymerically bonded and double endcapped for long lifetimes, with a 100Å pore size and a high carbon load. They show high resistance to harsh mobile phases and give sharp, symmetrical peaks even with strongly basic compounds. They are available in LC/MS, Expedite®, Rocket®, Solvent-Reducer, Analytical and Prep formats.

The Alltech Platinum Columns are designed to separate mixtures that a strongly hydrophobic phase cannot. They are silica based (100Å) and are available in Standard Platinum for neutral and moderately polar compounds and Platinum EPS (Extended Polar Selectivity) for compounds with multiple polar groups. They are available in Rocket®, Solvent-Reducer, Analytical and Prep formats. Vydac® 218TP reversed-phase columns are recommended for the separation of: Small polypeptides less than 4000–5000 MW / Enzymatic digest fragments / Natural and synthetic peptides / Multi-ring compounds.



GL Sciences provides the analytical HPLC columns of capillary HPLC to all column dimensions. Well known are the pillars of the company Inertsil GL. We supply you with the entire product spectrum of GL Sciences (spare parts, consumables, accessories).





Reversed-Phase

Anion Exchange

Cation Exchange

Ion Exclusion

Reversed-Phase HPLC Columns Hamilton reversed-phase HPLC columns combine the best characteristics of silica-based and polymeric columns to arrive at a product that is highly inert and long-lasting. Hamilton offers four polymeric and two silica-based packing materials for reversed-phase separations. In

anion exchange chromatography, the stationary bed has an ionically positive (+) charged surface while the sample ions are of negative (-) charge. This technique is used almost exclusively with ionic or ionizable samples. The stronger the negative charge on the sample, the stronger it will be attracted to the positive charge on the stationary phase, and thus the longer it will take to elute. Elution in ion chromatography is effected by mobile phase pH and ionic-strength, and, to a lesser extent, operation temperature. The ability to use the full pH range and elevated temperatures are distinct advantages compared to silica-based supports.

In **cation exchange** chromatography, the stationary bed has an ionically negative (-) charged surface while the sample ions are of positive (+) charge. This technique is used almost exclusively with ionic or ionizable samples. The stronger the positive (+) charge on the sample, the stronger it will be attracted to the negative charge on the stationary phase, and thus the longer it will take to elute. The mobile phase is an aqueous buffer, where both pH and ionic strength are used to control elution time.

Ion chromatography can employ harsh conditions requiring mobile phases that are at very high pH limits (> 11). Temperatures well above the normal operating conditions where silica materials fail can also be used. on **exclusion chromatography** is an alternative to ion exchange chromatography in which ionized samples are excluded from the pores of the support and elute first, while the weakly ionized and nonionic compounds elute later.

Mixtures of weak acids, like those in fruits and milk products, are frequently not very well separated by pure ion exchange methods, nor in the reversed-phase mode.

HALO® columns utilize our innovative particle technology for faster, more efficient (u)HPLC separations.

HALO®



VYDAC, ALLTIMA, ALLTIMAHP, PREVAIL, APOLLO, ALLSEP, APEX and GENESIS HPLCcolumn ranges acquired by Hichrom Limited .



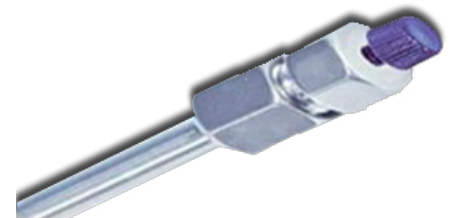
Hichrom Limited are pleased to announce we have acquired the worldwide exclusive rights to manufacture Vydac®, Alltima®, Alltima® HP, Prevail™, Apollo™, Allsep®, Apex™ and Genesis™ analytical HPLC column ranges from Grace/Alltech. Hichrom have now commenced manufacture of these columns to the same exacting manufacturing protocols and to identical specifications previously used by Grace/Alltech. Part numbers also remain unaffected by the acquisition.



KNAUER offers an extensive range of columns and phases for HPLC. Our more than 35 years of experience in the field of liquid chromatographic separation techniques is evidenced by each and every column we deliver. High performance quality sorbents such as our very own Eurospher provide for excellent results. The process of manufacturing our HPLC separation columns has been thoroughly optimized.

NUCLEOSIL® is a family of totally porous spherical silicas with a very pure and uniform SiO₂ structure

- Wide acceptance as routine packings for very different fields of chromatography
- One of the first spherical silicas used in HPLC
- Developed in the early seventies, it became a world-renowned HPLC packing
- Still found in many analytical and preparative applications
- An absolutely reliable choice in HPLC
- The largest variety of modified HPLC silicas available on the market.



NUCLEODUR is a fully synthetic type B silica (silica of 3rd generation) offering highly advanced physical properties:

- totally spherical particle shape, *outstanding surface microstructure, *high pressure stability
- low metal content
- NUCLEODUR as a state-of-the-art silica is the ideal base material for modern HPLC phases. It is the result of MACHERY-NAGEL's pioneering research in chromatography for almost 50 years.

Chromolith® HPLC Columns

Made of high-purity monolithic silica gel, Chromolith HPLC columns allow excellent separations in a fraction of the time that standard particulate columns require.

Columns for USP Specifications Use our convenient guide to select the right USP-specified column for your HPLC separation.



SeQuant® HILIC Columns

SeQuant® HILIC technology is the ideal choice for separations of all types of polar and hydrophilic compounds.

Purospher® HPLC Columns

Due to the absence of metals in their silica matrix and optimized surface properties, Purospher® columns ensure tailing-free separations of acidic, basic and chelating compounds.

LiChrosorb HPLC Columns

LiChrosorb is one of the most successful and reliable HPLC packing materials on the market. It is available as non-polar and polar derivatives, as well as derivatives of medium polarity.

LiChrospher HPLC Columns

LiChrospher® is a highly consistent and versatile spherical silica sorbent, which is offered with a variety of modifications.

Superspher® HPLC Columns

Superspher® columns are designed for highly efficient HPLC separations, and ideal for complex sample mixtures that require high peak capacity.



We are happy to supply you with PerkinElmer's chromatography products ranging from HPLC columns to spare parts and supplies for chromatography.

Brownlee Analytical This is PerkinElmer's all-purpose HPLC column line for conventional as well as high speed LC separations. The (110 Å) silica is equivalent to the Hypersil. Columns are available in 3 or 5 µ and lengths ranging from 30-250 mm, in 2.1 and 4.6 i.d. The Brownlee Analytical family includes Amino, C18, C8, Cyano, Phenyl, Silica, and PAH phases.



C18(2) Phase Information

Octadecyl silane ligands are bound to the silica surface, making for a very hydrophobic phase with great methylene selectivity. Non-polar endcapping virtually eliminates silanol interactions.

C5 Phase Information

Pentane silane ligands are bound to the silica surface, making for a slightly hydrophobic phase that's good for strongly hydrophobic compounds. Non-polar endcapping virtually eliminates silanol interactions.

C8(2) Phase Information

Octyl silane ligands are bound to the silica surface, making for a hydrophobic phase with moderate methylene selectivity. Non-polar endcapping virtually eliminates silanol interactions.

CN Phase Information

Nitrile groups bound to the silica surface offer a unique polar selectivity under reversed phase or normal phased conditions.

NH2 Phase Information

Amino groups bound to the silica surface serve as a weak anion exchanger and offer polar selectivity under reversed phase, normal phase, ion-exchange, or HILIC conditions.

PFP(2) Phase Information

Pentafluorophenyl groups bound to silica surface offer a unique aromatic selectivity due to highly electronegative fluorine atoms on the periphery of each phenyl ring.

HILIC Phase Information

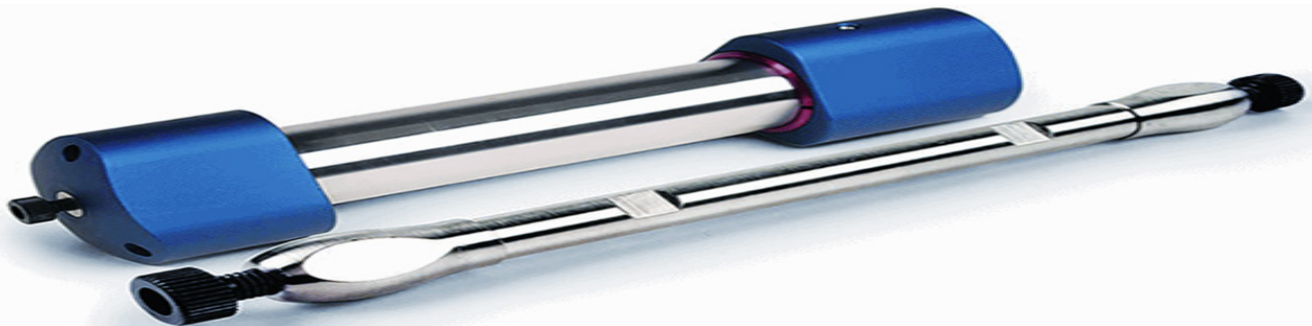
The silica surface is covered with cross-linked diol groups for polar selectivity under hydrophilic liquid chromatography conditions.

SCX Phase Information

Strong cation exchange groups are bound to the silica surface for a strong selectivity of positively charged compounds.

Normal phase

PREP C8(3)
PREP Silica(2) Phase
PREP Silica(3) Phase
Silica (2) Phase.



Luna HPLC Information

One of the World's Leading HPLC Columns Dependable, ultra-pure silica-based HPLC columns that offer an extensive variety of selectivities which are scalable from microbore to preparative and purification scale solutions.



Restek is a developer and manufacturer of innovative and high quality columns and accessories for GC and HPLC. We are pleased to offer you the entire range of products such as HPLC or GC columns from Restek.

Pinnacle® DB C18 Columns. particle size:

1.9 µm, 3µm, or 5µm, spherical, Hydrophobic C18 phase suitable for analyses of a wide range of compounds, from acidic through slightly basic. Replaces Hypersil® BDS C18 and Pinnacle® ODS Amine.



Pinnacle® II C18 Columns. particle size: 3µm or 5µm, spherical, suitable for a wide range of acidic to neutral hydrophobic compounds. Replaces Hypersil® ODS and Pinnacle® C18. Similar Phase(s): Hypersil ODS.

Pinnacle® II Amino Columns. particle size: 3µm or 5µm, spherical, The Pinnacle® II Amino column is ideal for mono- and disaccharide analyses. Replaces Hypersil® Amino and Pinnacle® Amino. Similar Phase(s): Hypersil APS 2 Amino, Spherisorb Amino.

Allure® C18 Columns. particle size: 5µm, spherical, Excellent Columns for LC/MS and ELSD Ultra C18 Columns. particle size: 3m or 5m, spherical, Excellent general-purpose reversed phase column. Similar Phase(s): Discovery C18, Symmetry C18, Hypersil Gold C18, Luna C18, Zorbax C18, Kromasil C18, LiChrospher RP-18, Inertsil ODS-2, Develosil C18.

Viva C18 Columns. particle size: 3m or 5m, spherical, for a wide range of compounds. Excellent general-purpose column for analyzing large molecules and biomolecules. Part of the Restek USLC™ column set, which offers.



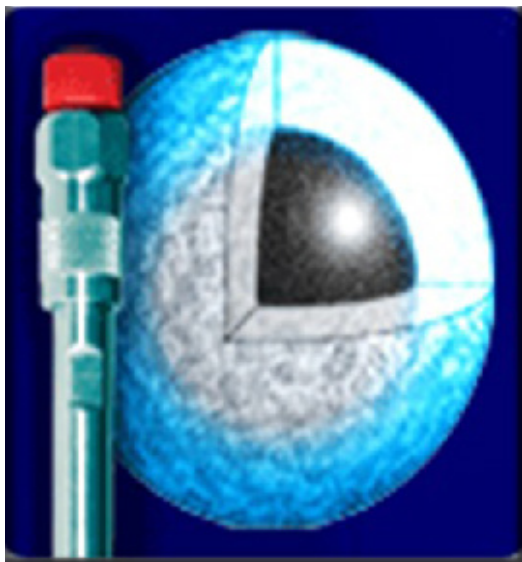
Chiral Chromatography

Discover the right chiral stationary phase (CSP) for your racemate with Regis' 13 exclusive CSPs.

IAM Chromatography Predict drug membrane permeability faster and cheaper than traditional in-vitro methods with the IAM HPLC columns.

RAM Direct Injection Separate small molecules in the presence of large biomolecules with the RAM HPLC columns.





HPLC and UHPLC Columns Supelco's HPLC & UHPLC columns meet today's challenging needs of Fast HPLC, LC-MS, biopolymer separation, high pH conditions, as well as traditional pharmacopeia and agency methods within pharmaceutical, environmental, and food industries. Fused-Core®, polymeric, monodisperse silica, ultra-pure silica, and zirconia are some of the particle platforms that make up the Supelco HPLC product line. Supelco has a tradition of providing innovative HPLC Columns. While Supelcosil and Discovery are trusted brands with a proven track record, Titan™ delivers leading edge UHPLC performance at an affordable cost, and Ascentis® Express and BIOshell™ (based on Fused-Core technology) have the capability to turn any HPLC system into a Fast HPLC workhorse. Furthermore, Astec chiral chromatography columns are the solution for chiral LC-MS. Supelco/Sigma-Aldrich also supplies leading brand HPLC columns, including Kromasil, TSKgel, Hamilton, LiChrospher, more.



High-Performance Shim-pack XR-ODS Columns for Fast, High-Resolution Analysis

With today's demand for greater efficiency in analytical laboratories, shorter analysis time has become the most important challenge in high performance liquid chromatography. For development or validation of analytical method, manufacturing uniformity of columns is increasing. Shim-pack VP-ODS has been developed to meet such expectations. To minimize column-to-column performance deviation of ODS columns, silica-bases, surface treatment and packing procedures are strictly controlled respectively and only the products that passed the quality criteria are delivered to customers. For development or validation of method, it would be efficient to run the test with a set of three columns with packings of different batches.



Since its initiation in 1940, the technical publication produced by the Shimadzu Corporation, has been used by many researchers and technology experts. Here, Shimadzu are offering summaries of these publications.

Cutting-edge analytical technologies are used for research and development or quality control in a wide variety of fields, such as pharmaceuticals, environmental measurement, and the life sciences.

These highly accurate testing and measuring technologies are used to support product inspection and quality control processes for manufacturing in industrial fields. They help ensure our lives are worry-free and safe.

- * Particle Size Analysis
- * Continuous Monitoring Analysis
- * Balances
- * Materials Testing & Inspection
- * Non-Destructive Testing.



Shodex

is part of the Showa Denko Group respectively Showa Denko Europe, one of Japan's leading manufacturers in chemistry with subsidiaries for sales and marketing in Europe. Analytics-Shop.com is an official dealer of Shodex products. We deliver the entire Shodex product range. Besides HPLC columns, HPLC RI Detectors & Spare Parts, HPLC conductivity detectors, HPLC degasser units and size exclusion molar mass standards are available.

Shodex HPLC Columns

Shodex HPLC columns are available in various materials such as Asahipak, OH-Pak, OR-Pack, RS-Pak and USP-Pak. Diameter and length of columns are freely selectable as well.



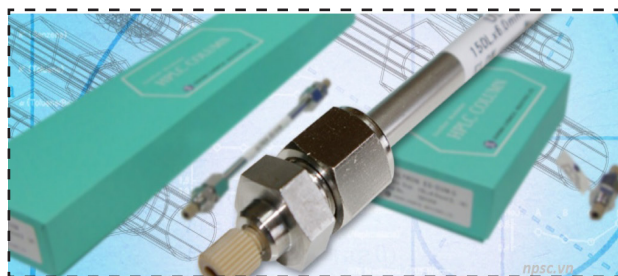
ProteCol™ HPLC Columns - Exceed the limit
A premium inert HPLC column range delivering optimal peak shape. The ProteCol™ HPLC column range features proprietary column designs, incorporating inert materials throughout the flow path and the highest quality stationary phases.

The combination of these factors delivers unparalleled separation performance.

ProteCol™-P features a PEEK™ lining while ProteCol™-G uses a glass lining.

Benefits of an inert flow path are:

- Optimized analyte recovery.
- Superior peak shape and reproducibility.
- Less artifacts due to reduced carry over.



Ultron™ special LC-columns:

- Ultron™ ES-OVM according to USP L57 specs.
- Ultron™ ES for enantiomeric separations
- Ultron™ VX-Sil for NP-chromatography
- Ultron™ VX-ODS/-Octyl for RP-chromatography
- Ultron™ PS-80H for Ion exclusion chromatography
- Ultron™ PS-80N/-80C/-80P/CI/CL for Ligand exchange chromatography.



Shiseido

is an internationally established, Japanese manufacturer of cosmetic products in the luxury segment, founded in 1872. With Shiseido HPLC this company has also distributed packing materials for liquid chromatography for a couple of years. Especially silicium polymers made Shiseido become that successful.

CAPCELL PAK is an

epoch-making HPLC column integrating the excellent separation performance of silica-based packing material and the high chemical stability of polymer-based packing material.

C4 stationary phase

for protein separation. Proteonavi has excellent acidic durability and is easy to shift from analytical to preparative size.

The SUPERIOREX ODS HPLC

column is filled with monomeric ODS packing material created from a high-purity silica with the highest carbon content (24%) among the HPLC Column Series.

The Chiral CD-Ph HPLC column is

filled with optical-resolution packing material created from precisely classified high-purity spherical silica with phenyl carbamate beta-cyclodextrin chemically bonded as a chiral selector.

A silica-based HILIC column

with phosphorylcholine (PC) group. PC HILIC shows excellent retention and separation of very polar and hydrophilic compounds.

The reduction column is

designed specially for the conversion of quinone into hydroquinone by catalytic reduction.

SUCREBEADS are

polymer-based stationary phase for sugar analysis. SUCREBEADS has high alkaline durability.

The Ceramospher HPLC column

features optical-resolution packing material with high selectivity created from a novel spherical clay mineral carrying an optically active metal complex.

SILICA is a high-performance

column filled with high-quality silica. The packing material can be classified into the SG type of high-purity silica and the AG type of general grade.



TOSOH

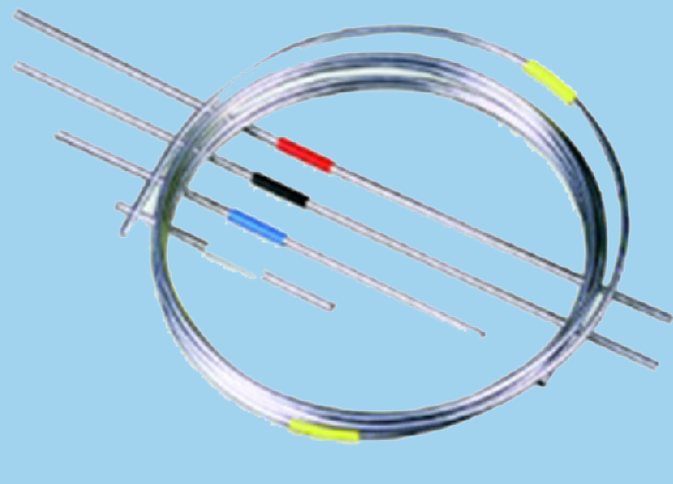


Thermo Fisher Scientific: manufactures innovative separation materials for a wide range of applications in a global marketplace, including Hypersil, Hypercarb™, BioBasic™ and HyPURITY™ columns.

We offer our customers a broad choice of quality HPLC columns, premium phases and innovative hardware designs to meet your application needs.



Thermo Scientific TRACE GC Columns: Our comprehensive portfolio of TRACE™ GC Columns offer reliable, reproducible results for GC and GC/MS to meet all of your analysis needs.



Hypersil BDS 5µm C18 Columns

are a good choice for QA/QC labs as a robust general-purpose column in applications, where reproducibility and long column lifetimes are.

Hypersil BDS 5µm C8 Columns

offer high quality base-deactivated, fully end capped phase with similar selectivity to C18 but slightly less retention.

Hypersil BDS

5µm Cyano Columns may be used for reversed or normal phase applications.

Hypersil MOS-2 (C8) Columns Hypersil Silica Columns

have a monolayer coverage of C8 alkyl chain chemically bonded onto the silica surface for a reproducible and efficient stationary phase.



Hypersil GOLD columns

are a modern family of highly pure silica, which was developed specifically for the demands of modern chromatography.

The Hypersil GOLD HPLC Columns are suited thanks to the excellent peak shape for all Analyttypen. Significant reduction in peak tailing while maintaining the C18 selectivity Very good resolution, efficiency and sensitivity.

Reliability in quality and accuracy of data analysis for HPLC and LC/MS.



SunFire

Columns SunFire Chromatography Columns are available in analytical and preparative dimensions and feature state of the art bonded silica designed for high mass loading capability, excellent low pH stability, superior peak shapes, and high efficiency.

CORTECS Columns

Based on 1.6 μm and 2.7 μm solid-core particle technology, CORTECS Columns enable you to achieve new levels of efficiency and performance.

Nova-Pak

Columns The bonded phases of Nova-Pak Chromatography Columns are available in 4 μm and 6 μm particle sizes that offer high resolution as well as faster and more efficient chromatography.

μ Bondapak®



XBridge

Columns Designed for maximum method development flexibility and fast purification. Develop robust methods for both small molecules as well as more complex biopharmaceuticals across a broad range of pH values, temperatures, and eluent choices.

Bioseparations

Columns&Consumables Chemistry consumables for the accurate analysis of peptides, proteins, oligonucleotides, glycans and amino acids.

Waters Spherisorb Columns Waters

Spherisorb Columns are produced in a wide range of particle sizes (3-, 5-, and 10- μm) and bonded phases to meet your chromatographic needs.

Atlantis

Columns Atlantis analytical and preparative columns are the industry-leading solution for polar compound retention.

XSelect

Columns The proprietary Charged Surface Hybrid (CSH) Technology that powers XSelect Columns improves selectivity and offers the highest possible performance for basic compounds in the acidic, low ionic strength mobile phases commonly used in LC-MS laboratories.

Symmetry Columns

Symmetry LC columns manufactured using high purity silica and tightly controlled manufacturing processes to ensure that you receive a column that exceeds the standards for HPLC column performance.

XTerra Columns

Based upon first generation hybrid (inorganic/organic) particles, the XTerra family of HPLC columns enables chromatographers to perform high pH drug discovery, method development and purification separations.

UHPLC

Columns Our focused selection of UHPLC columns highlight the performance advantages modern UHPLC instrumentation.



Whatman

offers a wide range of high-quality columns to meet your specific needs. In addition to the innovative.

Whatman Void Sealing Columns, Whatman makes available a selection of Whatman Compression Screw (WCS) standard end fitting column configurations for your analytical and preparative needs. They are specifically designed for compatibility with all HPLC instrumentation.

Whatman

Partisil is a high-purity irregular silica gel available in both 5 μm and 10 μm particle sizes with a pore size of 80 \AA . The choice of column packing includes Silica, C-18 polymeric phases (ODS-3, ODS-2) and C-8. Also available are SAX, SCX, and PAC. These columns provide reproducible results, column to column, lot to lot.



ZirChrom Separations, Inc.

manufactures a full line of LC/MS friendly, ultra-durable zirconia and titania-based (HPLC) stationary phases.

Columns packed with ZirChrom[®] phases offer unique chromatographic selectivity coupled with the high efficiency, low back pressure and excellent pore structure of rigid inorganic supports.

All ZirChrom[®] standard-sized HPLC columns are backed by a 90 day risk-free warranty.

ZirChrom[®] columns offer today's chromatographer the following advantages:

- Indestructible or resistant to a wide variety of solvents such as acids, bases, organic solvents, etc.
- Cleanable with strong solvents, resulting in longer column lifetime.
- Faster, cheaper analyses by using elevated temperature provided by column heater technology.
- Can be used over a wide pH range.
- No peak asymmetry with amines.

Analytical Columns by YMC

C18 | C18 AQ | C8 | C4 | Phenyl/PFP | Specialities | NP/HILIC | Chiral | IEX | SEC

Each YMC-Pack column is chromatographically tested to assure that plate count, peak symmetry and general column performance meet YMC's high standard of quality.

A column performance report is supplied with every packed column.

Each lot of YMC-Gel stationary phase is tested with a series of specific standard probes. These tests assure lot reproducibility and confirm applicability for the class of compounds for which the product is intended.

YMC-Pack ODS-AQ is a C18 reversed phase silica based HPLC packing material specifically designed for use in 100% aqueous eluents. As a result of the proprietary derivatisation process, YMC-Pack ODSAQ exhibits a different selectivity to that of traditional C18 stationary phases. This difference in selectivity of YMC-Pack ODS-AQ can be used to advantage for HPLC separations, which are difficult to achieve with conventional C18 columns.



YMC columns for SFC

YMC offers chiral and achiral phases for supercritical fluid chromatography (SFC) applications to provide the chemist with a number of options for SFC separations.

YMC columns for chiral HPLC YMC offers several solutions for separating chiral compounds with different chiral selectors and different chiral separation mechanisms.

The selector is either coated or bonded to the support material which has different pore sizes dependent on the selector.

According to the selector chiral chromatography can be performed in normal phase and/or reverse phase mode.

YMC HILIC columns HILIC HPLC/UHPLC columns from YMC are rugged stationary phases which provide improved LC/ESI-MS response, direct SPE solvent compatibility and complementary selectivity to reversed phases.

HPLC columns for SEC YMC-Pack Diol is available in four tightly controlled porosities and is, therefore, suitable for separation and molecular weight determination of a wide range of peptides, proteins, oligonucleotides, carbohydrates and other biopolymers with molecular weights of approx 200 to several hundred thousand.



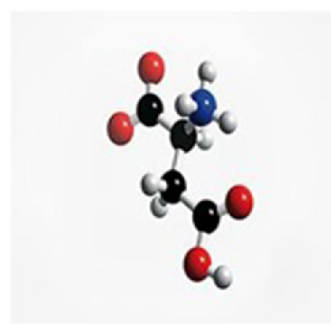
Reversed Phase (RP)
HPLC Columns



Normal Phase (NP)
HPLC Columns



Ion Exchange (IEX)
HPLC Columns



Biochromatography
HPLC Columns

Filter Papers



Whatman cellulose filters are manufactured from high quality cotton linters which have been treated to achieve a minimum alpha cellulose content of 98%. These cellulose filter papers are used for general filtration and exhibit particle retention levels down to 2.5 μm . **Whatman** offers a wide choice of retention and flow rate combinations to suit numerous laboratory applications. The different groups of cellulose filters offer increasing degrees of purity, hardness, and chemical resistance.

Glass Microfiber Filters



Whatman offers two types of glass microfiber filters manufactured from 100% borosilicate glass: binder free glass microfiber that is chemically inert and binder glass microfiber. These depth filters combine fast flow rates with high loading capacity and the retention of very fine particle, extending into the sub-micron range. Glass microfiber filters can be used at temperatures up to 500°C and are ideal for use in applications involving air filtration and for gravimetric analysis of volatile materials where ignition is involved.



Whatman glass microfiber filters have a fine capillary structure and can absorb significantly larger quantities of water than an equivalent cellulose filter, making them suitable for spot tests and liquid scintillation counting methods. The filters can also be made completely transparent for subsequent microscopic examination.

Membranes



Whatman brings to the laboratory user a range of membrane filters whose advanced technical specifications make them today's preferred choice for a wide range of applications. The membrane filters offer accurately controlled pore size distribution and higher strength and flexibility which ensure reproducibility and consistency. The Whatman membrane filter range includes pore sizes from 0.015 to 12 μm with a wide selection of membrane filters.

Sterile and autoclave packs are available for specialized applications. Colored and gridded types are also available.

Whatman PTFE membranes are chemically stable and inert. They are suitable for applications involving aggressive organic solvents, strong acids, and alkalis. PTFE membranes are particularly suitable for preparing samples for HPLC analysis. The hydrophobic nature of the membrane also has applications for air and gas sterilization.

High-quality nylon membranes are suitable for filtering aqueous solutions and most organic solvents. The membranes are suitable for use with a wide range of biological preparations and can be used where other membranes are unsuitable or difficult to use.



Syringeless filters



Whatman syringeless filters are pre-assembled convenient filtration devices for removing particulates from samples. They replace syringecoupled filtration devices with single, disposable units. Whatman has made sample preparation easier, faster and more efficient with its innovative product line of syringeless filters.

Autovial™ syringeless filters are preassembled filtration devices for removing particulates from samples. They replace syringecoupled filtration devices with single, disposable units.

Syringe Filters



GE Healthcare offers an extensive line of Whatman disposable syringe filter devices designed to provide fast and efficient filtration of aqueous and organic solutions. They are made with a wide variety of membrane filters with a polypropylene (or polycarbonate) housing using the most advanced methods and design features available today. These syringe filters are ideal for numerous applications in pharmaceutical, environmental, biotechnology, food/beverage, and agricultural testing laboratories.

In-line Filters



Whatman syringe filters are composed of either pure polypropylene or polycarbonate housing, heat sealed without the use of glues or sealants.

Whatman in-line filters feature a high-purity polypropylene housing to maintain sample purity and are available with a choice of filtration media to suit a range of aqueous and organic samples. They utilize the most advanced construction methods and design features. This level of engineering provides for the finest disposable in-line filter devices.

Capsule Filters



This device features a PTFE membrane which is ideal for chemically aggressive solutions, reagents and organic solvents. This lightweight unit is particularly suitable for protective vents and for inline filtration and isolation applications. Whatman products are manufactured with the highest quality materials, under exacting clean room conditions using ISO-controlled manufacturing processes. We offer a variety of pore sizes and filter materials to choose from, and all our capsules are free of adhesives to ensure product purity.

Whatman centrifuge filters are ideal for the quick and easy preparation of a wide range of laboratory samples by centrifugation. Whatman supplies centrifuge filters in two formats - both are supplied with a range of filtration and separation media.



VACU-GUARD

The easy-to-use VACU-GUARD™ inline filter devices help to confine and isolate infectious materials in vacuum systems and protect your laboratory.

Venting Filters

Whatman Venting Filters are disposable devices designed and manufactured with a high-purity polypropylene housing to maintain sample purity and are available with a choice of filtration media to suit a range of venting applications.



Specialty Devices Whatman offers a line of disposable specialty filter devices designed to provide fast and efficient filtration of aqueous and organic solutions. They are made with a wide variety of membrane filters with a polypropylene housing using the most advanced methods and design features currently available.



Membrane Filtration



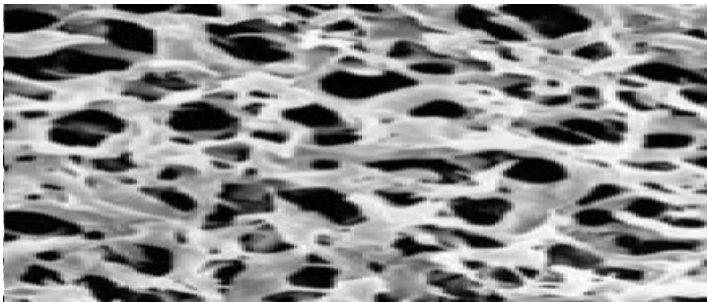
The technical requirements for membrane filters used in microbiological quality control are subject to strict national and international standards. At the same time, the requirements of the market are changing continually as a result of the introduction of new products, such as soft drinks, alcoholic mixed drinks or pharmaceuticals.

Whatman offers a wide and versatile range of membrane filter products with a very high level of consistent quality.



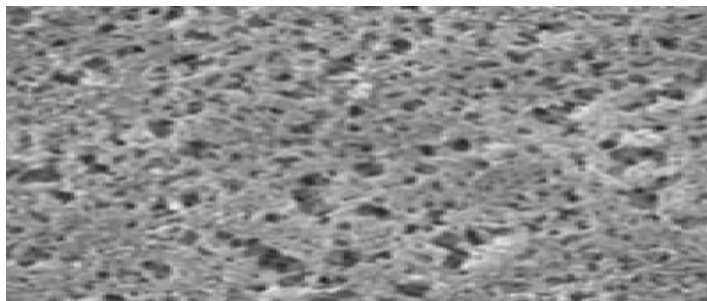
Durapore® Membrane Filters. PVDF

The Durapore membrane provides high flow rates and throughput, low extractables and broad chemical compatibility. Hydrophilic Durapore membranes bind far less protein than nylon, nitrocellulose or PTFE membranes.



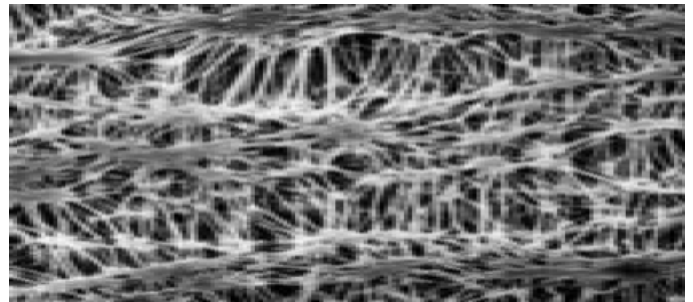
Nylon Membrane

Nylon filters are compatible with a broad range of solvents. Two types are available: membrane filters with pore sizes ranging from 0.20 to 1.2 μm and woven net filters (NY.) with mesh openings ranging from 10 to 180 μm .



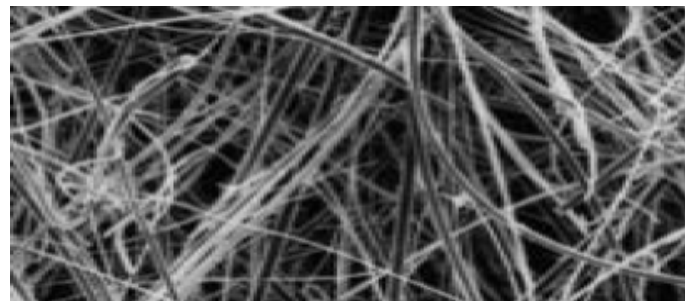
Glass Fiber Filters without Binder

The filters without binder resin retain their structural integrity without weight loss when heated up to 500 °C and can therefore be used in gravimetric analysis as well as for the filtration of hot gases.



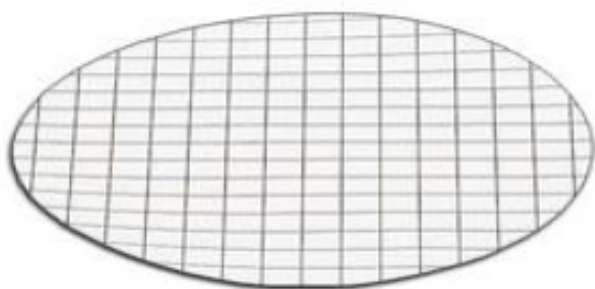
Glass Fiber Filters without Binder

The filters without binder resin retain their structural integrity without weight loss when heated up to 500 °C and can therefore be used in gravimetric analysis as well as for the filtration of hot gases.



Membrane Filters

The Sartorius membrane filters product line includes a wide selection of membrane materials for the microfiltration with pore sizes from 0.1 μm to 8 μm and for the ultrafiltration with molecular weight cut offs from 300,000 to 1,000 Dalton. Typical applications for membrane filters are cell retention, particle collection, clarification and sterile filtration of aqueous solutions, particulate analysis, microbiological analysis and epifluorescence microscopy.



Minisart GF

Minisart GF syringe filter units for the clarification of relatively dirty solutions and for pre-filtration. Minisart GF contains a glass fibre filter with a retention efficiency of 98 % for 1.2 μm spherical particles. These syringe filters allow for rapid small volume filtration with maximum user convenience.



Quartz Microfibre Thimbles

Quartz microfibre extraction thimbles, especially suited for emission monitoring. The extraction thimbles are manufactured free of glass fibres and binding agents and are thermally stable up to 900 °C. The inner diameter, outer length, round bottom and wall thickness are defined according to the norm DIN 12449. The quartz microfibre extraction thimbles are filters of highest purity.



Syringe Filters

Reliable removal of microorganisms and particles from liquids, air and gasses with Minisart® syringe filters. Typical applications are clarification, sterile filtration, sample preparation, sterile venting and medical applications. The syringe filters are available in many different pore sizes and with several hydrophilic or hydrophobic membrane materials.



Glass Microfibre Thimbles

Glass microfibre extraction thimbles for critical extractions, such as the separation of minutest particulate matter from dust, aerosols, gas or air streams. The extraction thimbles are manufactured from 100 % borosilicate glass and are thermally stable up to 500 °C. The inner diameter, outer length, round bottom and wall thickness of the glass microfibre thimbles are defined according to the norm DIN 12449.



Glass Microfibre Filters without Binder

Glass microfibre filters without binder for clarification of buffer, reagent and protein solutions, air monitoring, as well as gravimetric and wastewater analysis. They can also be used as a prefilter. The glass microfibre filters without binder are made of 100 % borosilicate, are highly pure and extremely white. They continue to perform over long periods unlike cellulose filters whose rate of filtration drops off rapidly as the particulate load increases.



Quartz Microfibre Filters

Quartz microfibre filters are especially suited for emission monitoring at temperatures of up to 950 °C and wherever filters of the highest purity are needed. Our quartz microfibre filters are free of glass fibres and binding agents.



Sartolab® RF | BT

Sartolab® RF (receiver flask) single-use vacuum filtration units for sterile and vacuum filtration. The units contain a high quality PES membrane and combine highest flow-rates and throughput with extremely low protein binding and extractables. The vacuum filters are also available as a (BT) bottle top version.



Filter Holders

Wide variety of filter holders, from stainless steel or glass filter holders to polycarbonate or PTFE syringe filter holders.



Filter Papers

Broad range of filter papers. You can choose from quantitative, qualitative, qualitative-technical filter papers, blotting and chromatography filter papers and many other paper grades for special applications. Our filter papers are depth filters and typical applications are particle retention in gases or aqueous solutions.



Vacuum filter holders

Vacuum filter holders made of glass or polycarbonate for clarification, sterile filtration, sterile venting, particle testing, ultracleaning and degassing solvents and solvent mixtures.

The vacuum filter holders are autoclavable and can reliably be re-used.



Pressure Filters Sartolab® P20

Pressure filters Sartolab® P20 are ready-to-use pressure filtration units for sterile filtration of media and aqueous solutions.



Syringe Filters

Acrodisc MS Syringe Filter / Acrodisc Syringe Filters with Versapor Membrane / Acrodisc Syringe Filters with GHP Membrane Acrodisc Syringe Filters with Glass Fiber / Acrodisc Syringe Filters with PTFE Membrane / Acrodisc Syringe Filters with PVDF Membrane / Acrodisc Syringe Filters with Nylon Membrane / Acrodisc Syringe Filters with HT Tuffryn Membrane / DMSO-Safe Acrodisc Syringe Filter / PharmAssure Pharmacy Filtration Devices.



Membrane Filters

GH Polypro (GHP) Membrane Disc Filters / GLA-5000 PVC Membrane Disc Filters / GN-6 Metrical® MCE Membrane Disc Filters / GN Metrical® MCE Membrane Disc Filters / HPLC Mobile Phase Filtration Membranes / HT Tuffryn® Polysulfone Membrane Disc Filters / PTFE Membrane Disc Filters / PVDF Membrane Disc Filters / Nylasorb™ Nylon Membrane Disc Filters.



Centrifugal Filters

Macrosep Advance Centrifugal Devices With Super Membrane / Jumbosep™ Centrifugal Devices / Nanosep® MF Centrifugal Devices with GHP Membrane / Nanosep® and Nanosep MF Centrifugal Devices.



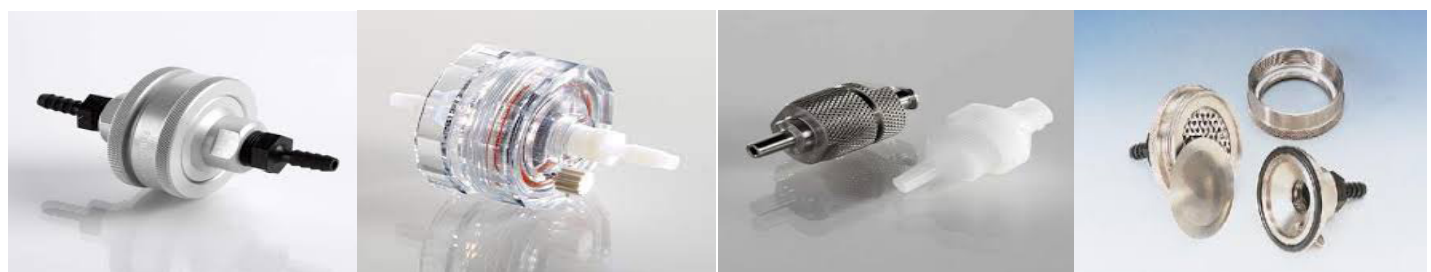
Filter Funnels

25 mm Filter Funnels, Polysulfone / 25 mm Filter Funnel, Stainless Steel / 47 mm Magnetic Filter Funnels / 47 mm Filter Funnels, Glass / 47 mm Pressure Filtration Funnel, Stainless Steel / Filter Funnel Manifolds.



Filter Holders

13 mm Swinney Filter Holder / 25 and 47 mm In-Line Filter Holders, Stainless Steel / 47 mm In-line Filter Holder, Polycarbonate Open-face Filter Holders / 47 mm In-line Filter Holder, Aluminum.



Filter Units

500-ml Capacity, MF75™ Series. polystyrene housing, 75 mm SFCA membrane / Sterilization Filter Units - 115 ml Capacity, CN Membrane, polystyrene housing / Filter Units - 150-ml Capacity, MF75™ Series. polystyrene housing, PES membrane. Filter Units - 500-ml Capacity, MF75™ Series. polystyrene housing, 75mm PES membrane / Bottle Top Filters - 500-ml Capacity, MF75™ Series. polystyrene housing, 75mm PES membrane / Tissue Culture Filter Units - 1,000-ml Capacity, MF75™ Series, polystyrene housing, 75 mm membrane / Bottle Top Filters - 1000-ml Capacity, MF75™ Series / Filter Units - 1000-ml Capacity, MF75™ Series / Media-Plus Filter Units - 500- & 1000-ml Capacities, MF75™ Series / Filter Unit Receivers Analytical Filter Units, CN Membrane, polypropylene upper, polystyrene lower / Bottle Top Filters - 500-ml Capacity, MF75™ Series.



Analytical Filter Funnels

CN Membrane, polypropylene upper, polystyrene, Ideal for use with filtering flask or manifolds. Upper chambers are graduated at 150 ml.



Filter Holder with Funnel

Can be used with any filtering flask or manifold that accepts a suitable rubber stopper with hole.



Syringe Filter

acrylic housing polyethersulfone (PES) membrane.



modified acrylic housing cellulose acetate (CA) or surfactant-free .



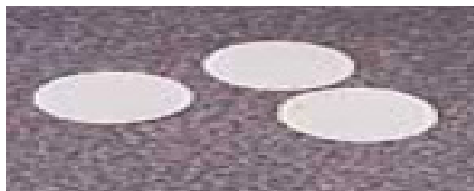
Filter Funnel with Clamp

Durable, break-resistant plastic filter funnel complete with clamp for use in microbial and particulate analysis. Same funnel design as glass funnels – but break resistant.



Membrane Filters

cellulose acetate (CA) Filter of choice for cold sterilization of proteinaceous solutions.



modified acrylic housing glass-fiber prefilter.



polypropylene housing Teflon*PTFE membrane.



Filter Holder with Receiver

Eliminate the need for a manifold and/or breakable glass vacuum flask. Receiver is graduated. Two side-arms allow connection to vacuum line.



Capsule Filter

PES polyethersulfone membrane, polypropylene housing The low protein binding PES membrane is ideal for cell culture media.



nylon membrane polypropylene housing.



modified acrylic housing glass-fiber prefilter cellulose acetate (CA) membrane.





Extraction thimbles

Analytical chemists worldwide appreciate MACHEREY-NAGEL extraction thimbles for their purity and consistent high quality. Extraction thimbles are often used in Soxhlet extractors or automated extractors. These are typically employed, where multiple extraction cycles are required to dissolve the desired compound. Extraction units equipped with MN extraction thimbles minimize the hands-on time and ensure a complete extraction. MN 645. standard grade, extraction thimbles made from pure cellulose MN 649. extraction thimbles made from glass micro fibers without binder, short-term temperature resistance up to 500 °C, very high particle retention, for dust analysis in hot exhaust gases.

Syringe filters

Syringe filters are used for filtration of suspended matter from liquid samples or gases. With CHROMAFIL®, rapid purification and removal of particles is very simple: just place the filter on the syringe, and you are ready for filtration. Special manipulations are not required. Contamination of sensitive instrumentation by solid impurities can be avoided, thus increasing lifetime of chromatographic columns and equipment.



CHROMAFIL® MULTI 96 filter plates

96-well polypropylene plates for simultaneous filtration of 96 samples Advantages of this high-throughput system: Economical by saving time and solvent Use of multi-channel pipettors facilitates liquid transfer steps Readily adaptable to all common automated / robotic handling systems Minimized dead volume ($\leq 40 \mu\text{L}$) .

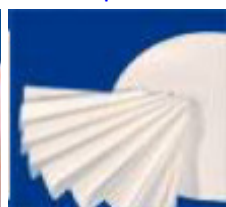


Filter papers

Ashless filter papers



Qualitative Filter Papers



Glass fiber Papers



Technical filter papers



Creped filter papers

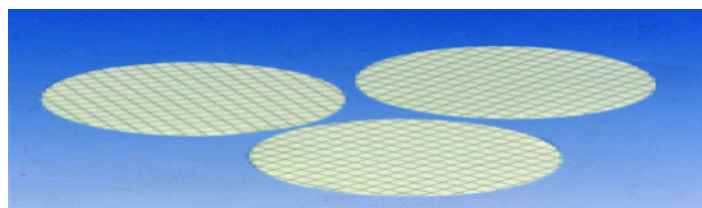


Embossed filter papers



Membranes

Membranes enable a very convenient, fast and economical separation. Often they are also used as a neutral sample support for further analysis.



Filtration cartridges for sample clarification under vacuum (e.g., using the CHROMABOND® vacuum manifold or SPE automation systems like Gilson Aspec™, Rapidtrace) or by gravity Cartridge sizes 3 mL and 6 mL Different membranes (PET, RC, PTFE, PVDF, GF) and pore sizes (0.2, 0.45 and 1.0 μm). The membrane materials correspond to the respective.



CHRODEX offers a widely range of laboratory filters and filtration accessories. Our sales range

of filtration products includes:

- Syringe Filters
- Membrane Filters.
- Filter Papers (Qualitative and Quantitative)
- Filtration Units
- Extraction Thimbles
- Vacuum Filtration Apparatus
- Vacuum Filtration Manifolds
- Filtration system
- Filter Holders
- Filter integrity Test device (for Testing sterile Filters in the pharmaceutical and Food industries)

For more information about our Filtration Program, please contact us at: info@chrodex.com

CHRODEX offers the most popular type of membranes to cover a very wide range of applications. Syringe filters are used to clarify small volume samples solutions prior to HPLC and ion chromatography analysis. Syringe filters are a cost effective way to improve the quality of HPLC analysis and for a maximum life time of your analytical column. Syringe filters removing any Particulates before the sample enters the column. All filter designed with a Female Luer Lock Input and Male Luer Slip Output.

All Chrodex Syringe Filters are tested to fully certified quality standards, and manufactured in accordance to ISO 9001

- Available in 3mm, 4 mm, 13 mm, 15mm, 17,mm, 25mm, 30mm, 33mm, 47mm, and 293mm diameters
- Available in pore size 0.20 µm, and 0.45µm
- Membrane types are CA, Nylon, PTFE, PVDF, RC, PES, MCE, PP, PET, and GMF
- Supplied in Pkg/100, and Pkg/1000
- Membrane type and pore size is printed on each filter for easy identification .

CHRODEX™ SYRINGE FILTERS (High quality - breaking prices):



Our brand Chrodex™ Syringe Filters has been produced by one of the German leading Manufacturers of Filtration. Chrodex has a high quality and ideal for your HPLC, Ion chromatography analysis and ideal for your budget at all. The widely range of non-sterile and sterile Chrodex syringe filters includes Cellulose Acetate (CA), Regenerated Cellulose(RC), Polyamide Nylon (PA), Polytetrafluoroethylene (PTFE), Polyvinylidene (PVDF), Polypropylene (PP), Polyethersulphone(PS), Polyester(PE), Mixed Cellulose Ester(CM), Cellulose Nitrate(CN), and Glass fibre membrane type (GF).

- Chrodex Syringe filters are available in 15mm, 25mm, and 30mm diameter and in 0.20µm, 0.45µm pore size
- Chrodex Syringe filters are supplied as Base Version in White colour, non-sterile, Ultrasonic-welded housing version, and in Pkg/100 or Pkg/1000
- Membrane type and pore size is printed on each filter for easy identification
- Chrodex Syringe Filter could also supplied as sterile version and in colour coded if you are interested in special colour for your filters
- Chrodex Syringe Filter are manufactured in accordance to ISO 9001-2000 .

Chrodex Syringe Filters (Basis Version):



1- Cellulose Acetate (CA):

Hydrophilic membrane has a low protein adsorption and high temp. Stability Ideal for filtration of aqueous based samples, suitable for most alcohols Used for biological samples (enzyme solutions, biological macro-molecules)Not to use with organic solvents .

Cat. No	Description	Diameter	Pore size	Pkg
SFCA1520	Chrodex syringe Filter CA, non-sterile	15mm	0.20µm	100
SFCA1545	Chrodex Syringe Filter CA, non-sterile	15mm	0.45µm	100
SFCA2520	Chrodex Syringe Filter CA, non-sterile	25mm	0.20µm	100
SFCA2545	Chrodex Syringe Filter CA, non-sterile	25mm	0.45µm	100
SFCA3020	Chrodex Syringe Filter CA, non-sterile	30mm	0.20µm	100
SFCA3045	Chrodex Syringe Filter CA, non-sterile	30mm	0.45µm	100



2- Regenerated Cellulose (RC):

Hydrophilic membrane, ideal for filtration of biological solution because of his low, non- specific absorption characteristics for Proteins

Cleaning and degassing of HPLC eluents.

High resistance to aqueous and organic HPLC solvents; pH 3 – 12

Do not use with some strong acids, Chloroform, THF.

Cat. No	Description	Diameter	Pore size	Pkg
SFRC1520	Chrodex Syringe Filter RC, non-sterile	15mm	0.20µm	100
SFRC1542	Chrodex Syringe Filter RC, non-sterile	15mm	0.45µm	100
SFRC2520	Chrodex Syringe Filter RC, non-sterile	25mm	0.20µm	100
SFRC2545	Chrodex Syringe Filter RC, non-sterile	25mm	0.45µm	100
SFRC3020	Chrodex Syringe Filter RC, non-sterile	30mm	0.20µm	100
SFRC3045	Chrodex Syringe Filter RC, non-sterile	30mm	0.45µm	100



3- Nylon (NY):

Hydrophilic membrane, Suitable for filtering aqueous solutions and most organic solvents Ideal for filtration of HPLC and Gas solvents

Can also be used for example for the clarification and sterilisation of alkaline solution Has generally good solvent resistance and high protein retention

Do not use with acids, Aggressive halogenated hydrocarbons, Protein samples.

Cat. No	Description	Diameter	Pore size	Pkg
SFPA1520	Chrodex Syringe Filter PA, non-sterile	15mm	0.20µm	100
SFPA1545	Chrodex Syringe Filter PA, non-sterile	15mm	0.45µm	100
SFPA2520	Chrodex Syringe Filter PA, non-sterile	25mm	0.20µm	100
SFPA2545	Chrodex Syringe Filter PA, non-sterile	25mm	0.45µm	100
SFPA3020	Chrodex Syringe Filter PA, non-sterile	30mm	0.20µm	100
SFPA3045	Chrodex Syringe Filter PA, non-sterile	30mm	0.45µm	100



4- Polytetrafluoroethylene (PTFE):

Hydrophobic membrane, Ideal for filtration of aggressive solvents

Has a low flow resistance to gases and can be also used for filtration of air an gases Clarification of non aqueous solvents It can also be made Hydrophilic by wetting with ethanol

Not recommended for aqueous samples.

Cat. No	Description	Diameter	Pore size	Pkg
SFPT1520	Chrodex Syringe Filter PTFE, non-sterile	15mm	0.20µm	100
SFPT1545	Chrodex Syringe Filter PTFE, non-sterile	15mm	0.45µm	100
SFPT2520	Chrodex Syringe Filter PTFE, non-sterile	25mm	0.20µm	100
SFPT2545	Chrodex Syringe Filter PTFE, non-sterile	25mm	0.45µm	100
SFPT3020	Chrodex Syringe Filter PTFE, non-sterile	30mm	0.20µm	100
SFPT3045	Chrodex Syringe Filter PTFE, non-sterile	30mm	0.45µm	100



5- Polyvinylidene (PVDF):

Hydrophilic membrane, Perfect for HPLC

Ideal for filtration of aqueous and mild organic samples

Ideal for filtration and sterilisation of biological solution

Low protein adsorption Not compatible with GC samples, strong acids, bases, esters, and ketones.

Cat. No	Description	Diameter	Pore size	Pkg
SFPV1520	Chrodex Syringe Filter PVDF, non-sterile	15mm	0.20µm	100
SFPV1545	Chrodex Syringe Filter PVDF, non-sterile	15mm	0.45µm	100
SFPV2520	Chrodex Syringe Filter PVDF, non-sterile	25mm	0.20µm	100
SFPV2545	Chrodex Syringe Filter PVDF, non-sterile	25mm	0.45µm	100
SFPV3020	Chrodex Syringe Filter PVDF, non-sterile	30mm	0.20µm	100
SFPV3045	Chrodex Syringe Filter PVDF, non-sterile	30mm	0.45µm	100



6- Polypropylene (PP):

Membrane is slightly hydrophobic. IC compatible

The filters can be used for aqueous and organic solvents Ideal for HPLC

filtration, low protein bonding, and have high long-term stability The flow rates of aqueous solutions are therefore lower than with comparable hydrophilic membranes

Can be used as a pre-filter to remove large particulates prior to further filtration

Cat. No	Description	Diameter	Pore size	Pkg
SFPP1520	Chrodex Syringe Filter PP, non-sterile	15mm	0.20µm	100
SFPP1545	Chrodex Syringe Filter PP, non-sterile	15mm	0.45µm	100
SFPP2520	Chrodex Syringe Filter PP, non-sterile	25mm	0.20µm	100
SFPP2545	Chrodex Syringe Filter PP, non-sterile	25mm	0.45µm	100
SFPP3020	Chrodex Syringe Filter PP, non-sterile	30mm	0.20µm	100
SFPP3045	Chrodex Syringe Filter PP, non-sterile	30mm	0.45µm	100



7- Polyethersulphone (PES):

Membrane is hydrophilic and has a very low protein adsorption, use with liquid of high temp. High flow rates in comparison to other membranes Popular in used for partially organic and aqueous media in the area of pharmaceutical and biological sample preparation PES is suited for tissue culture work and best choice for protein solution,

Do not use with acids, ketones, esters, halogenated or aromatic hydrocarbons.

Cat. No	Description	Diameter	Pore size	Pkg
SFPES1520	Chrodex Syringe Filter PES, non-sterile	15mm	0.20µm	100
SFPES1545	Chrodex Syringe Filter PES, non-sterile	15mm	0.45µm	100
SFPES2520	Chrodex Syringe Filter PES, non-sterile	25mm	0.20µm	100
SFPES2545	Chrodex Syringe Filter PES, non-sterile	25mm	0.45µm	100
SFPES3020	Chrodex Syringe Filter PES, non-sterile	30mm	0.20µm	100
SFPES3045	Chrodex Syringe Filter PES, non-sterile	30mm	0.45µm	100



8- Polyester (PE):

- Hydrophilic membrane
- Ideal For polar and non-polar solvents, as well as aggressive media
- Can be used for aqueous and organic solvents or mixture of the both
- Ideal for HPLC sample preparation
- The membrane is not cytotoxic.

Cat. No	Description	Diameter	Pore size	Pkg
SFPET1520	Chrodex Syringe Filter PET, non-sterile	15mm	0.20µm	100
SFPET1545	Chrodex Syringe Filter PET, non-sterile	15mm	0.45µm	100
SFPET2520	Chrodex Syringe Filter PET, non-sterile	25mm	0.20µm	100
SFPET2545	Chrodex Syringe Filter PET, non-sterile	25mm	0.45µm	100
SFPET3020	Chrodex Syringe Filter PET, non-sterile	30mm	0.20µm	100
SFPET3045	Chrodex Syringe Filter PET, non-sterile	30mm	0.45µm	100



9- Mixed Cellulose Ester (CM):

Hydrophilic membrane, composed of cellulose acetate and cellulose nitrate

Used in Analytical and research applications

Ideal for filtration of Oil particulate and Alcohol particulate

Similar properties to the CA or CN membranes

Very low protein binding membrane – less than PVDF or PS

Ideal for aqueous based samples

Ideal for filtration of tissue culture media and sensitive biological samples when used with a glass pre-filter same Housing. Excellent choice when maximum protein recovery in the filtrate is critical. Do not use with organic solvents.

Cat. No	Description	Diameter	Pore size	Pkg
SFCM1520	Chrodex Syringe Filter CM, non-sterile	15mm	0.20µm	100
SFCM1545	Chrodex Syringe Filter CM, non-sterile	15mm	0.45µm	100
SFCM2520	Chrodex Syringe Filter CM, non-sterile	25mm	0.20µm	100
SFCM2545	Chrodex Syringe Filter CM, non-sterile	25mm	0.45µm	100
SFCM3020	Chrodex Syringe Filter CM, non-sterile	30mm	0.20µm	100
SFCM3045	Chrodex Syringe Filter CM, non-sterile	30mm	0.45µm	100



10- Fibreglass (GF):

Used as a pre-filter for filtration of media difficult to filter or samples with a high particulate content, Inert to solvents, acids and bases,

Due to threedimensional filter surface provides a much greater intake capacity for contaminating particles.

Cat. No	Description	Diameter	Pore size	Pkg
SFGF1520	Chrodex Syringe Filter GF, non-sterile	15mm	0.20µm	100
SFGF2520	Chrodex Syringe Filter GF, non-sterile	25mm	0.20µm	100
SFGF3020	Chrodex Syringe Filter GF, non-sterile	30mm	0.20µm	100



11- Cellulose Nitrate (CN)

Hydrophilic membrane
 Used for sample preparation of aqueous media
 Ideal for microbiological investigation
 High, non-specific adsorption capability for biological components (bacteria, yeasts, etc)
 Ideal for separating such compounds out of the solution.

Cat. No	Description	Diameter	Pore size	Pkg
SFCN2520	ChroDEX Syringe Filter CN, non-sterile	25mm	0.20µm	100
SFCN2545	ChroDEX Syringe Filter CN, non-sterile	25mm	0.45µm	100
SFCN3020	ChroDEX Syringe Filter CN, non-sterile	30mm	0.20µm	100
SFCN3045	ChroDEX Syringe Filter CN, non-sterile	30mm	0.45µm	100

Membrane Disc Filters:



CHRODEX offers Membrane disc filters provide consistent and reliable results. Optimized for HPLC media preparation, Pharmaceuticals and Cold Sterilization, Membrane Filters are ideal to almost laboratory solvent and samples. Available in popular Nylon, PTFE membranes, in 13 mm, 47 mm diameters and in 0.20 µm, 0.45 µm pore size. Cronus Membrane filters are available in standard version plain white, and non-sterile. For Sterile and autoclave as well as colour and gridded membrane types are available, If you need for your applications other membrane and other pore size, please contact us:

info@getechnology.de

Membrane disc filters are not suitable for your applications, Please contact us:

info@chrodex.com

Cat. No	Description	Diameter	Pore size	Pkg
MDFN1345.100	Membrane Filter Nylon, plain	13mm	0.45µm	100
MDFN4702.100	Membrane Filter Nylon, plain	47mm	0.2µm	100
MDFN4745.100	Membrane Filter Nylon, plain	47mm	0.45µm	100
MDFPT4702.100	Membrane Filter PTFE, plain	47mm	0.2µm	100
MDFPT4745.100	Membrane Filter PTFE, plain	47mm	0.45µm	100

MDF= membrane disc filter.

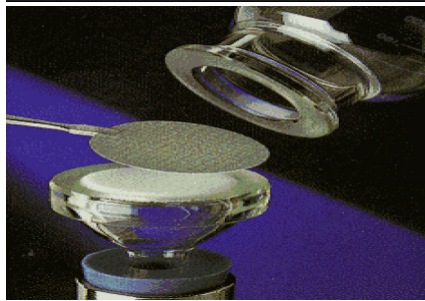


MEMBRANE FILTERS

Membrane filters or "membranes" are polymer films with specific pore ratings. Membranes retain particles and microorganisms that exceed their pore ratings by acting as a physical barrier and capturing such particles on the surface of the membrane.

PREFILTERS & DEPTH MEDIA

Prefilters are often prepared from depth-type media, a random matrix of material which may or may not contain binder. These filters trap particles within the matrix and therefore have a high loading capacity. But because of this design, these filters do not have a clearly defined pore size, only a nominal rating.



Vacuum Filter Holders

Microanalysis filter holders can be used with a filtering flask or a vacuum manifold to collect samples for particulate or microbiological analysis.

Pressure Filter Holders

Ultraclean or sterilize liquids or gases at high pressures.
Achieve higher flow rates with greater differential pressures than with vacuum
Avoid downstream foaming of proteins and other polymers
Minimize unintentional contamination downstream of the membrane.



UHP Centrifugal Filter Holders

Centrifugal filter holder for a variety of applications, Collect concentrated solution, filtrate, or both, Accommodates all ϕ 13mm filters (not included).



USY Disposable Ultrafilter Units

for hassle-free filtration, Clear units allow continuous observation of filtration stop filtration at any time, Easy unit assembly and operation requires no special lab equipment - units work with standard luer-lock syringe (not included).

DISPOSABLE SYRINGE FILTER UNITS

These syringe filter units are useful for small volume filtration of liquids or gasses or other material-specific applications.



FILTER PAPERS

Qualitative filter paper for precipitate removal and qualitative analysis preparation / Quantitative filter paper for gravimetric analysis or environmental monitoring.

FILTRATION ACCESSORIES

ASME-certified pressure vessels for filtration / Stirred Cells for desalting and concentrating biological samples / Manifolds for serial vacuum filtration / Compact 4.2A, 1/8hp vacuum pumps for convenient use.





CHRODEX LABORATORY

SCIENCE HAS NO LIMITS

