



## Laboratory products catalog.

Ahlstrom is a high performance fiber-based materials company, partnering with leading businesses around the world to help them stay ahead. We aim to grow with a product offering for clean and healthy environment. Our materials are used in everyday applications such as filters, medical fabrics, life science and diagnostics, wallcoverings and food packaging. In 2014, Ahlstrom's net sales from the continuing operations amounted to EUR 1 billion. Our 3,400 employees serve customers in 22 countries. Ahlstrom's share is quoted on the NASDAQ OMX Helsinki. More information available at www.vwr.com

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## Qualitative Filter Papers

Ahlstrom's qualitative grades of filter paper are, by definition, recommended for use in analytical methods, which determine or identify particulate constituents of a mixture irrespective of the amount present. Qualitative filter papers are often used in routine separation work that still requires high purity and consistent performance.

Ahlstrom offers a complete range of low ash filter papers for general laboratory work that provides you with the correct combination of particle retention, filtration speed, loading capacity and wet-strength. All our qualitative grades consist of > 95% super refined  $\alpha$ -cellulose and linter fibers.

#### Standard Grades (Non Wet-Strengthened)

Standard qualitative filter papers are suitable for quadrant folded or gravity flow applications. These grades contain a high level of alpha-cellulose that provides high purity but will weaken when wet. The inherent strength of standard (untreated) grades does not pose a problem when they are used in routine quadrant folded applications. We do not recommend these grades for use in vacuum work or when wet handling is required.

#### Typical grade properties

Standard Grades	Retention in µm	Filtration Speed punch Herzberg sec/100mls	Filtration Speed Rapidity mls/min	Loading Capacity
610	1.5	1724	4	Medium
642	2.0	229	30	Medium
601	2.5	124	55	Medium
237	3.0	114	60	Very High
609	4.0	98	70	Medium
613	6.0	114	60	Medium
631	10.0	34	200	High
615	25.0	29	235	High
617	35.0	19	360	Very High

Size*	237	601	610	613	615	617	631	642
2.5	47749-618	47749-656	47749-672	-	-	-	-	-
4.25	47749-620	38000-025	47749-674	71440-026	-	-	47749-686	38001-029
4.7	47749-622	47749-660	-	-	-	-	47749-688	47749-710
5.5	38003-021	47745-808	38005-024	71440-028	47745-834	47745-820	-	38001-040
7	-	28342-016	47749-676	-	-	-	47749-690	-
9	-	47745-812	38005-068	71440-032	38004-062	47745-824	47749-692	47745-804
11	38003-087	47745-814	38005-080	71440-010	-	28342-034	47749-694	38001-109
12.5	38003-101	47745-816	38005-104	71440-012	38004-109	28342-032	47749-696	38001-120
15	38003-123	47745-818	38005-126	71440-014	38004-120	71440-006	47749-698	38001-142
18.5	47749-624	38000-160	38005-148	71440-016	38004-142	47745-826	47749-700	47745-806
20.5	47749-626	38000-182	-	-	71440-034	-	47749-702	47749-712
24	47749-628	-	47745-802	-	38004-164	30617-438	-	-
27	-	47749-664	47749-680	-	-	-	47749-706	47749-714
32	-	38000-229	47749-682	-	-	30617-440	47749-708	47749-716
38.5	-	47749-666	-	-	71440-040	-	-	47749-718
40	47749-630	47749-668	-	-	-	30617-442	-	-
50	47749-632	47749-670	47749-684	-	47745-838	47745-832	-	47749-720

#### Standard Grades (Wet-Strengthened)

These grades contain a reinforcement agent that increases their resistance to rupture when wet, such as in vacuum filtration, and their resistance to acidic solutions.

#### Typical grade properties

Wet-Strength Grades	Retention in µm	Filtration Speed Herzberg sec/100mls	Filtration Speed Rapidity mls/min	Loading Capacity
950	2.0	491	14	Medium
909	3.0	105	65	Medium
962	27.0	28	245	High
961	40.0	19	360	Very High

Size*	950	909	962	961
4.25	47749-732	-	47749-790	-
4.7	47749-734	-	47749-792	-
5.5	47749-736	-	47749-794	47749-762
7	47749-738	-	47749-796	47749-764
9	47749-740	-	47749-798	47749-766
11	47749-742	47749-722	47749-800	47749-768
12.5	47749-744	47749-724	47749-802	47749-770
15	47749-746	47749-726	47749-804	47749-772
18.5	47749-748	47749-728	-	47749-774
24	47749-750	47749-730	47749-806	47749-778
32	47749-752	-	47749-810	47749-780
38.5	47749-754	-	-	47749-782
40	47749-756	-	47749-812	47749-784
45	47749-758	-	-	47749-786
50	47749-760	-	47749-814	47749-788

#### Pleated (Fluted) Filter Paper

Ahlstrom offers a full range of standard pleated grades that meet your needs from grades with rapid flow rates for filtration of viscous materials to grades with tight matrices for removal of fine precipitates. Ahlstrom's pre-pleated grades can save valuable time and maximize the efficiency of the laboratory filter system. Pleating improves the effective surface area increasing flow rate and loading capacity thus decreasing filtration time. Pleated circles are available in 12.5cm to 50cm diameters.

#### Typical grade properties

	Filter paper base	Retention in µm	Filtration Speed Herzberg sec/100mls	Filtration Speed Rapidity mls/min	Loading Capacity
542	642	2	229	30	Medium
509	609	4	85	80	Medium
513	613	6	114	60	Medium
515	615	25	29	235	High
562	962	27	28	245	High

Catalog numbers Pleated (Fluted) Grades (100/box)								
Size*	509	513	515	542	562			
12.5	47745-864	47745-840	47745-846	47745-850	47745-852			
15	47745-866	47745-842	38000-196	38002-044	47745-854			
18.5	47745-868	22224-999	38000-200	38002-066	47745-856			
24	47745-844	47745-844	47745-848	38002-088	47745-858			
32	28334-192	71440-004	-	47749-634	47745-860			

## Quantitative Filter Papers

Ahlstrom manufactures a series of extremely high purity, acid washed filter papers designed for use in analytical and gravimetrical analysis. All quantitative grades are made using pure

cellulose with an alpha-cellulose content of almost 100% and meet the requirements of ASTM E832-81 for Type II filter paper to be used for quantitative analysis.

#### Hardened Low-Ash Filters - (Ash 0.01%)

Suitable for routine gravimetric analysis and typical preparation of samples for use in analysis involving instrumental techniques. Low ash grades have intermediate ash content between qualitative grades and ashless grades.

#### Ashless Grades (Ash 0.007%)

Commonly used filters in many standardized test methods. Suitable for both gravimetric analysis and sample preparations where a high-purity filter is preferred. Standard ashless grades do not contain any reinforcement agents.

#### Hardened Ashless Grades (Ash 0.006%)

These specially treated hardened ashless grades are available for critical quantitative analytical techniques requiring increased wet-strength and handling capacity.

- Tough, smooth surface of these filters is free of loose fibers to better collect wet precipitates.
- Manufactured from top quality cotton linters using ultra-pure, reverse-osmosis water and further treated with dilute acid to remove organic and inorganic impurities.
- High chemical resistance to strong acid and alkali solutions.

#### Typical grade properties

Grades	Retention in µm	Filtration Speed Herzberg sec/100mls	Filtration Speed Rapidity mls/min	Loading Capacity	Туре
391	2-3	1200	7	Medium	Hardened Low Ashless
392	5-8	300	33	Medium	Hardened Low Ashless
388	12-15	40	267	Medium	Hardened Low Ashless
94	1.5	1724	4	Medium	Ashless
74	2.0	229	30	Medium	Ashless
54	10.0	34	200	Medium	Ashless
95	1.5	458	15	Medium	Hardened Ashless
75	2.0	149	45	Medium	Hardened Ashless
55	15.0	31	220	Medium	Hardened Ashless

Size*	54	55	74	75	94	95	388	391	392
4.25	47749-436	47749-448	47749-464	47749-482	47749-498	47749-512	10754-500	10754-440	10754-454
5.5	47749-440	47749-452	47749-466	47749-484	38009-048	47745-760	10754-424	10754-444	10754-458
7	38007-002	38008-027	47749-468	47749-486	47749-500	47745-762	10754-426	10754-508	10754-460
9	47745-730	47745-736	47745-740	47745-746	47745-754	47745-764	10754-428	10754-510	10754-462
11	47745-732	47745-738	47745-742	47745-748	38009-106	47745-766	10754-430	10754-512	10754-464
12.5	47745-734	28334-145	47745-744	47745-750	47745-756	47745-768	10754-432	10754-446	10754-466
15	38007-080	28334-154	38006-106	47745-752	47745-758	47745-770	10754-434	10754-448	10754-468
18.5	-	38008-129	38006-128	47749-488	47749-502	47749-514	10754-436	10754-450	10754-470
24	47749-442	47749-454	47749-470	47749-490	47749-504	47749-516	10754-438	10754-514	10754-472
27	47749-444	47749-456	47749-472	47749-492	-	47749-518	10754-502	10754-516	10754-474
32	47749-446	47749-458	47749-474	47749-494	-	47749-520	10754-504	10754-518	10754-476
40	-	47749-460	47749-476	-	47749-506	47749-522	10754-506	10754-452	10754-478

## Chromatography, Electrophoresis and Blotting Paper

Ahlstrom manufactures a complete line of high quality chromatography, electrophoresis and blotting papers for use in gel transfer applications and chromatography techniques. These uniform, smooth, white sheets are the high purity, high quality, and high value standard. They are used in nucleic acid research such as Southern, Northern and Western blots, electroblotting and electrophoresis. Ahlstrom chromatography, electrophoresis and blotting papers are made from high purity and 100% FDA compliant alpha cotton cellulose, using ultra-pure RO water and contain no additives that could cause increased backgrounds or other interference in detection systems.

#### Key features

- Controlled absorption
- Uniform absorption
- Consistency across the sheet
- Lot-to-lot consistency
- High purity, no sizing or fillers
- Excellent wet-strength and handling
- No hard spots or density variations
- No airborne fibers
- Custom cut
- Bulk packaging

Grades	Thickness mm	Klemm 1/16th/min	Absorption Speed mm/30 min
	 Ahl	strom Thin Paper	
601	0.19	13	125
642	0.21	12	120
631	0.23	21	150
	Ahls	trom Thick Papers	
238	0.34	15	140
237	0.42	18	150
222	0.83	33	220
243	0.95	21	180
320	2.48	48	240

Size*	601	642	631	222	237	238	243	320
5 x 7.5	-	-	-	-	-	47749-816	-	28334-164
7 x 8	490005-080	-	-	490005-058	490005-066	47749-818	-	28334-162
7 x 10	47745-904	-	-	47745-908	47745-890	47745-886	-	28334-166
10 x 15	47745-906	-	-	47745-910	47745-892	28342-038	-	490005-078
11 x 14	-	-	-	-	-	47749-820	-	28334-170
14 x 16	-	-	-	47745-912	-	28342-040	-	28334-172
14 x 17	-	-	-	-	-	47749-824	-	-
16 x 16	490005-082	-	-	490005-062	-	47749-828	-	-
16 x 18	490005-084	-	-	490005-064	-	47745-888	-	28334-174
20 x 20	47745-898	-	-	47745-914	47745-894	28334-178	-	28342-050
46 x 57	28334-194	47749-846	47749-848	47749-854	47745-896	28342-036	47749-850	-

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## Glass Microfiber Filters

Ahlstrom offers a full range of glass microfiber filters manufactured from 100% pure borosilicate glass. Because of their intrinsic properties, glass microfiber filters have wide applications in many areas of laboratory analysis, especially when fine filtration and high loading capacity is required. Applications for Ahlstrom glass microfiber filters include environmental analysis for water, wastewater, testing of soils, air pollution and monitoring, research and process biochemistry, and gravimetric analysis involving ignition of samples. Ahlstrom glass microfiber filters are also found in the filtration of hot gases and liquids, and in pre-filtration.

#### Key features

- Qualitative analysis
- Laboratory analysis
- 100% pure borosilicate glass
- Rapid flow rate
- Fine particle retention0.7µm 3.1µm
- High loading capacity
- Chemical and thermal resistance (up to 500°C)
- Long shelf life
- Brilliant white color reflecting more than 96% of visible light
- Custom cut

#### Typical grade properties

Grades	Retention in µm	Filtration Speed Herzberg sec/100mls	Filtration Speed Rapidity mls/min	Loading Capacity
151	0.7	274	25	Very High
121	1.0	143	48	Very High
131	1.0	88	78	Very High
161	1.1	67	102	Very High
111	1.2	53	130	Very High
141	3.1	19	350	Very High

#### Catalog numbers (100 circles/box)

All circle diameters are in centimeters

Catalog	Horrioers (100 circle	es/DOX)			7	'All circle diameters are in centimeters
Size*	111	121	131	141	151	161
2.1	38010-100	47749-532	47749-548	47749-562	47749-578	47749-590
2.4	47745-772	38010-418	38010-670	28496-168	47749-580	47749-592
2.5	47749-526	47749-534	47749-550	47749-564	28496-174	47749-594
4.25	47745-774	47745-790	38010-685	28496-170	47749-584	47749-602
4.7	47745-776	38010-429	47745-796	38010-725	28496-176	47733-002
5.5	47745-778	38010-436	47745-798	47749-568	38010-838	47749-604
7	47745-780	47745-792	47749-554	-	47749-586	38011-920
9	47745-782	47745-794	47742-552	47749-570	28496-178	47733-000
11	47745-784	47749-538	47749-556	47749-572	47749-588	47733-004
12.5	47745-786	47749-540	47749-558	28496-172	28496-180	47749-608
15	47745-788	47749-542	47749-560	47749-576	28496-184	38011-968

#### Products for Suspended Solids Analysis

This test for measuring solids in water calls for a glass filter disk without organic binder for some steps. After the filtering process, the filter retaining the solids from method B, C, or D is heated to 550°C in a muffle furnace and desiccated as necessary until measured weight is stable. Grade 169 meets the needs of both Standard Method 2540D: Total Suspended Solids and Standard Method 2540E: Volatile Suspended Solids.

Changes in the weight of the filter when heated to this temperature can affect the reliability of this test. Grade 169 is designed to maintain a stable weight at 550°C.

Any brittleness caused by the heat exposure can make the filter too difficult to handle and invalidate the test if pieces break off. Grade 169 exhibits similar handling characteristics before and after 30 minutes in a 600°C furnace.

#### Catalog numbers Grade 169 (100 circles/box) \*All circle diameters are in centimeters. 169 2.1 10199-604 2.4 10199-606 4.25 10199-610 4.7 10199-612 5.5 10199-614 7.0 10199-616 9.0 10199-626 11.0 10199-628

#### **Pre-weighed Filters**

Ahlstrom also offers a pre-washed and pre-weighed filter for determination of suspended solids. Each filter is washed and weighed following the procedures in the latest version of STM 2540. It comes in an aluminum pan with the weight printed on the side for ease of use.

## Catalog numbers Pre-weighed Filters (100 circles in pans/box) \*All circle diameters are in centimeters. Size\* Pre-weighed 4.7 10199-602

#### Filter Papers for TCLP

Ahlstrom offers three microfiber glass grades for use in the toxicity characteristic leaching procedure (TCLP) as described in EPA Method 1311.

#### Grade 151 – Standard TCLP Filter

This high performance binder-free grade, described on page 17, is Ahlstrom's standard recommendation for TCLP testing.

#### Grade 193 – Low Metal TCLP Filter

This grade has similar performance properties to Grade 151 and is made with acid-treated borosilicate glass microfibers with inherently low levels of barium and zinc. The filter media contains no binders or other additives that may cause interference with samples. The filters resist acids and bases and have a nominal particle retention of 0.7 µm.

#### Grade 26 – Pre-washed Low Metal TCLP

Filter This grade uses the same acid-treated glass microfiber media as Grade 193, which is then acid-washed using 1N HNO3, as described in EPA Method 1311. The filter media is thoroughly rinsed in a multi-stage process using copious amounts of highpurity deionized water. Prewashing with acid further reduces the content of metals to exceptionally low levels. This eliminates the need to acid-wash the filters in your lab, saving valuable time and reducing waste disposal and reagent costs.

## Typical levels of trace elements in Grade 26

Element	mg/L
Ag	0.02
As	0.010
Ва	0.200
Cd	0.002
Cr	0.013
Нд	0.0005
Pb	0.006
Se	0.004

Catalog num	ioers			*All circle diameters are in centime
Size*	Grade 193	Circles/Box	Grade 26	Circles/Box
4.7	12000-108	100	-	100
9	12000-110	100	97009-972	50
11	12000-112	100	12000-100	50
12.5	12000-114	100	-	50
14.2	12000-116	100	-	50
15	12000-118	100	-	50

## Micro Filtration Products

Ahlstrom offers the most popular membrane materials for diverse applications. Gridded sterile microbiological membranes and non-sterile hydrophilic microfiltration membranes are available. ReliaPrep™ syringe filters are available in several different membranes and sizes to accomodate a variety of sample matrices for demanding sample preparation and microfiltration applications.

#### Ahlstrom Reliadisc™ Gridded Microbiological Monitor Membranes

Catalog numbe	ers				*All circle diameters are in centimeters
Membrane Type	Pore Size	Grid	Membrane Diameter (mm)	Pack of 1000	Pack of 3x100 for Auto-Dispenser
Cellulose Nitrate	0.45 µm	White w/ black grid	47	10192-174	10192-176
Cellulose Nitrate	0.45 µm	Black w/ white grid	47	10192-154	

#### Ahlstrom ReliaDisc™ Non-sterile Membrane Filtration Media

Catalog numbers	5			*All circle diameters are in centimeters
Membrane Type	Pore Size	Grid	Membrane Diameter (mm)	Pack of 1000
Cellulose Acetate	0.45 µm	White w/ black grid	47	10192-170
Nylon (Polyamide)	0.45 µm	Black w/ white grid	47	10192-172

#### Ahlstrom ReliaPrep™ Non-Sterile Syringe Filters

Membrane	Filter Diameter (mm)	Pore Size (µm)	Pack of 500	
Cellulose Acetate	28	0.2	10192-156	
	28	0.45	10192-158	
Nylon (Polyamide)	15	0.22	10192-162	
	15	0.45	10192-166	
	25	0.22	10192-168	
	25	0.45	10192-198	
Polyether Sulfone	28	0.2	10192-200	
	28	0.45	10192-202	
PTFE	4	0.22	10192-204	
	4	0.45	10192-180	
	15	0.22	10192-184	
	15	0.45	10192-188	
	25	0.22	10192-192	
	25	0.45	10192-194	
Glass Fiber Prefilter	28	0.7	10192-196	

## Ahlstrom GenCollect™ Sample Collection Cards

Ahlstrom's GenCollect card is an easy and cost-effective way to collect and store biosamples at ambient temperature for a wide range of applications such as genotyping, forensics and paternity tests.





Ahlstrom cards, made of high purity cellulose, provide a rapid and safe way to collect, transport and store biological samples at ambient temperature. Nucleic acids can be easily extracted from the biosamples for subsequent analyses.

Ahlstrom offers **GenCollect**<sup>™</sup>, a white card format and Ahlstrom **GenCollect**<sup>™</sup> **Color**, a pink card format. Ahlstrom GenCollect<sup>™</sup> card is recommended for easily identified samples, such as whole blood, while Ahlstrom GenCollect<sup>™</sup> Color is useful for clear samples such as saliva, buccal cells or urine.

#### Key features

- Simple collection
- Nucleic acids stabilization for short-term ambient storage
- Cost and time-saving DNA purification
- Faster downstream analyses
- Ready-To-Use biosample collection card

#### Typical characteristics

Product	Cards/Pack	Sample areas/ card	Max. Vol loaded/sample area(µl)	Sample type	Max. storage	Applications		
	100	4	125	Blood				PCR, Real Time PCR,
Ahlstrom GenCollect™	100	2	125		6 months	direct PCR Sequencing, STR analysis, plasmid amplification		
	100	1	125	-				
	100	4	125	Saliva Buccal Cells		Buccal Cells 6 months direct PC		PCR, Real Time PCR,
Ahlstrom GenCollect™ Color	100	2	125				direct PCR Sequencing, STR analysis, plasmid	
	100	1	125	Urine		amplification		

10 Specialty Products
Specialty Products

## Specialty Products

Ahlstrom offers specialty products for the scientific industry. Many products were designed alongside the researchers doing test development in order to provide the necessary performance characteristics.

#### pH Papers and Test Strips

Ahlstrom offers a range of test papers for rapid determination of pH and other conditions. Universal pH indicator papers are stocked in a roll of 5m in a plastic case, a refill pack of 3 reels for that case, and in a box of 200 strips. pH test strips, which have small squares of paper, each prepared with a different indicator, are also available. Ahlstrom offers a larger selection of pH indicator papers and test strips for different pH ranges plus a selection of reagent papers for special order. Please contact customer service for additional details.

Catalog n	numbers			*All circle diameters are in centimeters
	Roll of 5m	Refill pack x3	Box of 200	Test Strip 100 per box
pH 0-14	-	-	-	10199-582
pH 1-14	10199-598	10199-600	10199-618	-
pH 1-11	10199-620	10199-622	10199-624	-

#### Extraction thimbles

#### Cellulose extraction thimbles

Ahlstrom offers high purity extraction thimbles. Cellulose thimbles are high quality sample reservoirs for quality control, research, and analytical applications where solvent extraction of solids and semi-solids must be carried out. The use of a Soxhlet extractor provides a safe method of extraction with toxic and other noxious solvents. Walls of cellulose thimbles are approximately 1.5 mm thick and have been found to perform satisfactorily in application requiring either a single or double wall thickness.

#### Micro-glass fiber thimbles

Glass thimbles are used to sample dust particles and aerosols from gaseous streams in the analytical registration of environmental pollution and for Soxhlet extractions requiring solvents too aggressive for the cellulose thimbles.

#### Micro-quartz fiber thimbles

Quartz thimbles are used for emission testing in high temperature environments. They can also be used for testing acidic gases which are not compatible with micro-glass fiber thimbles. Quartz meets the highest purity requirements due to the lowest possible heavy metal content.

# Catalog numbers \*Thimbles are packed 25 pieces per box Size Cellulose 22 x 80 mm 28320-406 25 x 80 mm 28320-500 26 x 60 mm 28320-408 33 x 80 mm 28496-164 33 x 94 mm 28320-506 43 x 123 mm 28320-510

# Catalog numbers \*Thimbles are packed 25 pieces per box Size Micro-glass 19 x 90 mm 10199-566 30 x 100 mm 10199-568 33 x 94 mm 10199-570

Catalog numbers *Thimbles are packed 25 pieces per box	
Size	Quartz
43 x 123 mm	10199-580

#### Micro-Quartz Fiber Filters

Ahlstrom's micro-quartz filters are useful for testing hot "stack" gases as the quartz fibers can withstand temperatures up to 900°C. In addition, micro-quartz is used when the highest purity media is required. With excellent filtration properties and minimal traces of metals and minerals, quartz fibers are dimensionally stable and can be used in the analysis of acidic gases (with the exception of HF). Other sizes available for special order. T293 also available for special order.

#### Key features

- Each batch of MK 360 is trace elements certified
- Made of extremely pure micro-quartz filters
- Binder-free
- Particularly suitable for low amounts of particles
- Conditioned by high temperature pre-heating

#### Catalog numbers

Grade 169 (100 circles/box)
\*All circle diameters are in centimeters.

Size*	169
MK 360	10199-564

### Typical levels of trace elements in MK 360

Element	mg/L
Al	25
As	0.2
Cd	<0.02
Со	<0.5
Cr	3.5
Cu	<1
Fe	20
Hg	<0.025
Mg	15
Mn	1
Na	10
Ni	0.5
Pb	0.3
Sb	<1
Sn	<0.5
Ti	1.5
V	<0.5
Zn	3

#### Typical grade properties

Grades	Basic Weight g/m2s	Efficiency %**	Pressure Drop mbar*	Penetration %**	Temperature °C
MK 360	85	99.95	51.5	<0.05	900 max

#### Sugar Testing Filter Paper

Ahlstrom offers a full range of specially designed filter paper for use in the sugar industry. Ahlstrom 8613 has a smooth black finish designed for use in applications requiring visual examination of particles.

#### Typical grade properties

Grades	Retention in µm	Filtration Speed Herzberg sec/100mls
8613	4	118
Filtration Speed Rapidity mls/min	Wet Burst Inches	Loading Capacity
58	29	Medium

#### perties

#### Polyshield® Fluid Barriers

Ahlstrom's Polyshield Fluid Barrier is a super absorbent, pure cellulose paper with an impermeable polyethylene backing that absorbs splatters and spills, and protects work areas from contamination and damage by toxic, infectious, corrosive, radioactive or staining materials. Polyshield's smooth, firm surface does not inhibit stability of bottles or tubes. Disposal is safe and easy and Polyshield ashes readily upon incineration.

#### Catalog numbers

Sugar Testing Grades (8613 and 962: 100/pk; 961: 50/pk)

\*All circle diameters are in centimeters. Grade 613 and 615 catalog numbers are shown in the Qualitative Filter Paper section

Size*	8613
2.4	47745-870
3	28342-012
4.25	28342-020
4.7	47745-872
5.5	28342-010
7	47745-874
9	28320-555
11	47745-876
12.5	47745-878
15	8613-1500
18.5	8613-1850

#### Catalog numbers

\*50 sheets per pac

Size	Grade 4002
46cm x 57cm Sheets	47745-882
46cm x 50m Roll	47745-880
92cm x 50m Roll	47745-884

## Custom Order and Product Development

Ahlstrom is recognized worldwide as a leading custom manufacturer and converter of filtration, absorbent and specialized web materials. Ahlstrom's technical staff will work with your research and development department to determine specific product needs and specifications. Products listed in this catalog represent the grades and sizes most commonly used in the laboratory market. Most Ahlstrom papers can be supplied in special sheet, roll or diecut sizes. To obtain information on other sizes and grades, please contact VWR.

#### Samples

Product samples are available, upon request, to assist you in determining the Ahlstrom grade that is most suited to your application. Please contact VWR to obtain samples.

#### Quality

Ahlstrom's continued commitment to our customers is supported through registered adherence to ISO 9001 standards.



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