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# CLOTHS FOR FILTER PRESSES







#### Introduction

The filter press was the first equipment used on industrial scale for solid-liquid separation; it was later followed by the belt press for continuous process applications. From the first introduction of these new technologies, Testori developed customized filter media working with OEMs to meet the needs of many different industries and applications: chemical and pharmaceutical industries, mining, water treatment, food industry, etc.

Testori offers a wide range of woven fabrics (cloths and backing cloths) for traditional filter presses, vertical filter presses and belt presses.

#### FILTER PRESSES: WOVEN FABRICS & FINISHED ITEMS

Testori's historical know how allowed the development of a wide range of woven fabrics with a wide range of yarn types and fibers.

#### **Our Finished Products**

Our cloths are designed for any type or design of plate. They can be: single, barrel neck or drape-over; they may have special barrel necks and are equipped with eyelets and/or with Velcro® closure to secure the cloth to the plate. It is also possible to apply felt or fabric reinforcements the bearing surface to avoid leakage. If required by the process, it is also possible to apply specific resins to seal the stitching and bearing surface areas. Testori also makes continuous cloths for vertical filter presses.



Filter Press cloth



Filter Press - Courtesy of DIEMME



Filter Press detail

Testori's concern for the environment and its research facilities have joined to develop an eco-friendly product line called GREENCLOTHS™

**GREEN**CLOTHS™ include the key components of the finished cloths and its processing:

- **GreenTes™** Cloths with ecologically friendly water based resins
- A.C.E.™ Anti-Corrosion Eyelet: plastic eyelets are used to replace metal components and to facilitate disposal of used cloths

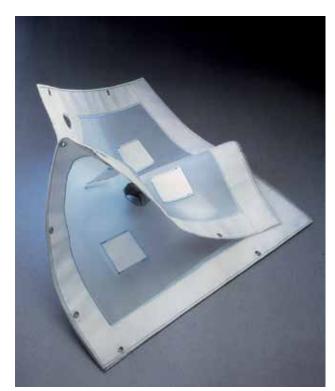
Testori's standard maximum dimensions are 2000 x 2000 mm. Larger cloths (up to 2500 x 2500 mm) are available on request.

Cloths for filter presses						
Dimensions	Cloth type	Plate type	Cloth reinforcement	Plate Connection	Resin	Barrel neck
All dimensions till 2500 x 2500 mm	Overhang Single Twin Continuous for tower filter	Plate - frame Recessed chamber Membrane Gasket leak free	Needlefelt Woven fabric Rubber	Inox eyelets Velcro® Rubber seal	Food grade Special polymers	Woven fabric Special coating
GREENCLOTHS™				Plastic eyelet: <b>A.C.E.</b> ™	Water based resin: GreenTes™	

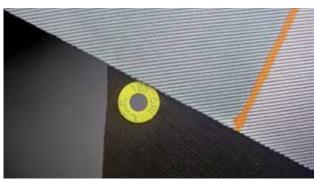








Cloth with reinforcement frame



GreenTes™ cloth



A.C.E.™ cloth

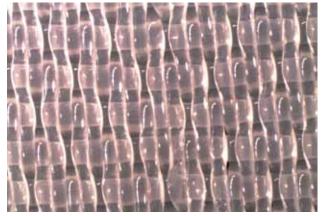
### Our woven fabrics

Testori woven fabrics for cloths/backing cloths and specifications are described below (many products have been customized to meet specific product or process needs):

		Woven fa	brics for filter	press cloths		
	Fiber - yarn type	Testori code	Weight g/m <sup>2</sup>	Air permeability @ 200 Pa I/dm <sup>2</sup> • min	Average pore size (in microns)	Flow
	Polyamide - M / M	N 4423 CQ	295	350	49	4
	Folyanlide - IVI / IVI	N 4462 CQ	350	300	38	4
	Polyamide - M / F	N 4501 CQ	265	90	30	3
	Polyamide / Polypropylene - M / M	NP 9301 TC	290	500	45	4
	Polypropylene - F / S	P 6582 T	500	20	15	2
	Polypropylene - F / F	P 6528 TC	500	5	11	2
	Polypropylene - M / F	P 1003 CQ	490	10	33	2
	Polypropylene - M / M	P 1008 CQ	275	30	36	3
	Delivered to a MA/F	P 3801 CQ	370	18	42	2
	Polypropylene - M / F	P 4018 CQ	280	35	23	2
		P 5501 CQ	360	25	31	3
Woven fabrics	Polypropylene - M / M	P 8329 TC	270	1300	55	4
Idulics		P 9366 TC	275	400	50	4
	Polypropylene - F / F	P 6218 CQ	690	5	9	2
	Polypropylene - M / F	P 6125 CQ	435	50	25	3
	Polypropylene - M / M	P 2625 CQ	380	400	70	4
	Polypropylene - F / F	P 4407 TC	410	18	12	2
	Polypropylene - M / M	P 9350 TC	260	160	38	4
	Polyester - M / M	T 3802 CQ	500	1450	48	3
	Polyester - F / S	T 6585 T	570	30	19	2
	B	T 6218 CQ	965	5	20	2
	Polyester - F / F	T 4600 T	450	5	7	2
	PVC-M/M	V 4420 GQ	390	2800	66	4
	5.1.1	T 657 SA	650	50	15	2
Felts	Polyester	T 552 SA	550	100	20	2

Legend

 $S = staple \mid F = multifilament \mid M = monofilament \mid 1 = poor \mid 2 = medium \mid 3 = good \mid 4 = very \ good \ All \ data \ are \ not \ binding \ and \ may \ vary$ 



Woven fabric polypropylene monofilament



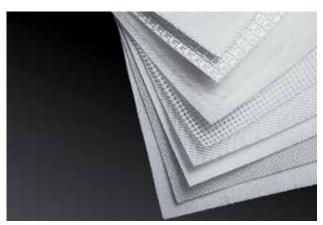
Woven fabric polyamide monofilament

Efficiency	Cake release	Lifetime	
2	4	2	
2	4	3	
3	4	2	
2	4	3	
3	3	4	
4	3	4	
4	4	3	
3	4	3	
3	4	4	
3	4	3	
3	4	4	
1	2	3	
2	3	3	
4	3	4	
3	3	3	
2	3	4	
4	2	3	
2	3	3	
1	2	4	
4	3	4	
4	2	4	
3	3	3	
2	3	3	
4	2	disposable	
3	2	disposable	

Woven fabrics for filter press backing cloths				
Testori code	Fiber	Weight g/m²	Use	
P 0400 GQ	Multifilament polypropylene	340	Regular	
P 1107 GQ	Multifilament polypropylene	360	Resistant	
P 0501 T	Monofilament polypropylene	125	For light/monofilament fabrics	
P 1630 GQ	Monofilament polypropylene	135	High drain	



Mono/multifilament woven fabrics



Woven fabrics

# BELT PRESSES

Testori supplies polyester woven fabrics for belt presses with the following features:

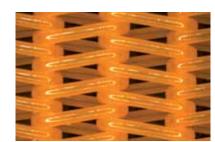
- Clipper closure in stainless steel or Hastelloy
- Closed ring execution
- Different resins on edges and at closures

Woven fabrics for belt presses					
	Fiber	Weight g/m²	Air permeability		
Testori code			@ 200 Pa I/dm²· min	@ ½" H <sub>2</sub> O ft³/ft² • min	Application
T 8160 TQ	Polyester	1300	1980	430	Biologic sludge
T 8240 TQ	Polyester	1170	2300	500	Dynamic thickeners
T 8195 TQ	Polyester	1250	1840	400	Biologic sludge
T 8190 TQ	Polyester	1750	1940	420	Inerts
T 8220 TQ Spiral	Polyester	1500	2075	450	Inerts, mining

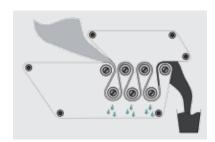
All data are not binding and may vary



Clipper closure



Spiral woven fabric



Belt press working scheme

## MAIN APPLICATIONS

Testori products can be used for all **filter press and belt press applications:** 

### • Water treatment - sludge from:

- Municipal wastewater treatment plants
- Industrial wastewater treatment plants (chemical, pharmaceutical, food, ceramic, tanneries, glassmaking)
- Fracturing oil & gas extraction
- Potable drinking water
- Drainage or runoff
- Perchlorates treatment and fume reduction

# Pharmaceutical industry:

- Antibiotic culturing
- Purification of intermediates and vaccines
- Active charcoals and bleaching earth
- Algae and agar agar

#### • Chemical industry - production and purification of:

- Organic and inorganic pigments
- Dyes
- Catalyzers
- Silica
- Titanium dioxide
- Brine and soda/chlorine plants
- Organic and inorganic acids

- Stearate and glycerin
- Carbonate e sulfate
- Synthetic fibers
- Bentonite and bleaching agents

#### Metallurgical industry

- Hydro-metallurgic refining processes of precious metals (gold, platinum, silver) and nonferrous metals (nickel, copper, lead, chrome, zinc)
- Alumina production
- Lead recovery processes

#### Mining industry

- Sludge dewatering during sterilization
- Kaolin and clay purification
- Dewatering of metal suspensions (iron, copper, zinc)
- Coal washing
- Carbonate and sulfate purification

### Food industry

- Sugar production
- Beer brewing
- Vegetable oil separation (palm oil)
- Wine making (musts and lees filtration)

### Tanneries

## Galvanizing plants



Chemical industry - pigments



Mining industry



Sugar production plant