

SAATICARE HYPHYL

High performance diagnostic solutions



Saaticare® Hyphyl® is a product designed especially for diagnostic test strip, which optimizes the wetting process of the samples surface.

Thanks to customized hydrophilic treatment, developed with the expertise of our R&D engineers, and uniform monofilament woven fabric, Saaticare® Hyphyl® allows a fast and effective flow of the liquid which assures a low retention of fluid inside (the bed volume). The bed volume or holding capacity of a fine woven fabric is typically three or even four times lower than a common membrane.

This means that by using a woven fabric instead of a typical cellulosic filter it is possible to avoid the retention of too much blood during the test.

In addition to coating, SAATI offers an opportunity to accurately design the wetting process through the use of different mechanical structure of fabrics with precise geometrical tolerances. Below you can find an example showing the differences between two fabrics treated with the same hydrophilic treatment:

PES 105/52 Hyphyl® is characterized by a very open structure; it is not able to completely spread the drop but leaves 30% of the liquid over the

surface. This product is better regarding the amount of liquid transferred per unit of area.

PES 105/52 Hyphyl[®] is the ideal solution, if you're looking for a product that needs a relatively high concentration of liquid to properly react on the small area.





If the test strip is engineered to cover a wide area with a very limited amount of liquid, PES 18/13 Hyphyl® is the best solution because the spreading effects over an area is four times larger than PES 105/52 Hyphyl®.

Moreover this item, characterized by a flat and full surface, transfers a higher amount of liquid to the

substrate: 88% of total, thanks to low bed volume. <u>The result</u>: using PES 18/13 Hyphyl® the test strip will

react quicker giving a predictable and accurate result when using only smallest drop of blood.



-iltration application news

The graphs show a comparison between PES 18/13 Hyphyl and PES 105/52 Hyphyl taking into consideration three parameters:



SAATICARE Hyphyl® Polyamide

Product No.	Mesh Opening	Open Area	Mesh Count		Thread Diameter	Weight		Thickness	Air Permeability 20mm WG	Porosity ¹	Holding Capacity ²
	μm	%	n/cm	n/inch	μm	g/m²	oz/sq.yd	μm	l/m²s	%	µl/cm ²
PA 195/43	195	43	34	86	100	65	1,9	180	7375	69	12,3
PA 125/38	125	38	49	124	80	57	1,7	145	6300	63	9,2
PA 105/32	105	32	55	140	80	66	1,9	140	5200	56	7,9
PA 68/37	68	37	90	229	44	32	0,9	75	5300	60	4,5
PA 55/43	55	43	120	305	30	20	0,6	52	5600	67	3,7
PA 38/28	38	28	140	356	30	25	0,7	53	4100	59	3,1

SAATICARE Hyphyl® Polyester

Product No.	Mesh Opening	Open Area	Mesh Count		Thread Diameter	Weight		Thickness	Air Permeability 20mm WG	Porosity ¹	Holding Capacity ²
	μm	%	n/cm	n/inch	μm	g/m²	oz/sq.yd	μm	l/m²s	%	µl/cm²
PES 285/44	285	44	23	58	145	110	3,2	255	8220	68	17,5
PES 200/43	200	43	32	81	100	75	2,2	160	7550	67	10,7
PES 190/32	190	32	29	74	145	135	4,0	258	5800	55	13,0
PES 105/52	105	52	69	175	40	25	0,7	63	8275	71	4,5
PES 90/32	90	32	62	157	64	57	1,7	106	4800	59	6,3
PES 53/40	53	40	120	305	31	27	0,8	48	4700	59	2,9
PES 18/13	18	13	200	508	31	48	1,4	60	800	42	2,5

The listed technical specifications, exception made for the thread diameter indicated with its nominal value, are referred to the arithmetic mean value of production samples and are subject to change without any notification, in accordance with our policy of continuously improving our products.

This is just a small selection of possible SAATICare® Hyphyl® range of mesh for diagnostic test strips. Complete mesh range are available on request. PA (PA 6.6) = polyamide PES (PET) = polyester

1 also referred to as **Open Volume** 2 also referred to as **Bed Volume**



Volume of liquid transferred

SAATICare® PES 18/13



SAATI Customized solutions:

At our state-of-the-art facilities, We also provide tailor-made solutions, guaranteeing superior quality and lot-to-lot consistency of the products. All products engineered for healthcare conform to USP Class VI.



Dyeing



Fabricated parts



double or multi layers packaging



Your Advantages:

SAATICare® Hyphyl® PES 18/13

- Fast lateral wicking
- · Predictable and low bed volume
- Optimized wettability
- Possibility to have a custom-made
- Hydrophilic coating



Main applications of SAATICARE®



SAATICare® products are manufactured in Class 10,000 Clean Rooms in accordance with UNI ISO 9001 regulations and certified to USP VI

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Diagnostic

Spirometer

Biopsy bag

Test strip

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Company Profile

SAATI s.p.a is a leader in the development, production and commercialization of high-tech precision monofilament and multifilament fabrics for advanced industrial application in several business segment.

SAATI – Filtration specializes in the production of technical fabrics and components in polyamide, polyester and polypropylene, with special finishing treatments.

The products are used in a wide range of different filtration fields, such as automotive, water, medical industries, acoustic, appliance

sectors, milling, along with many other industrial applications.

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Medical

- Blood bag
- Infusion filter
- Transfusion filter
- Oxygenator
- Arterial filter