

Saatilene Hi-Glass Mesh

Premium Quality High-Tension, Low-Elongation Mesh With The Value-Added Benefit Of Surface Modification



Saatilene Hi-Glass is an innovative high modulus, low elongation monofilament polyester screen printing fabric with a proprietary surface treatment, developed to meet the stringent requirements parameters of glass industry applications. Its excellent dimensional stability improves the printing registration, while its uniform mesh openings and fabric thickness produce controlled ink deposit. SAATI is always committed to high quality standards, and for the most challenging automotive glass industry an advanced quality inspection system has been introduced, in order to highlight to the screen maker possible defects that will damage the screen quality, like knots or other visual defects. Defects are highlighted directly on the roll, in order to let the activity in the shop floor much easier, and documents will trace the main roll mesh parameters. This system will eliminate the risk to create screen with mesh defects, improving yield and customer satisfaction.

KEY PRODUCT CHARACTERISTICS

- Excellent mechanical behavior
- Low elongation
- Low relaxation
- Optimized mesh geometry and precise mesh openings due to improved production process
- Long lasting surface modification thanks to Plasma treatment
- Excellent antistatic property
- Width up to 4 meter.

HIGH TENSILE STRENGTH THREAD

- Superior Dimensional Stability which remain constant during all printing run
- Mesh ready to use in less time, as it can be brought up to the required tension quicker
- Strict tolerance control
- Ink volume consistency
- Improves ink flow & deposit

BENEFITS OF SURFACE TREATMENT

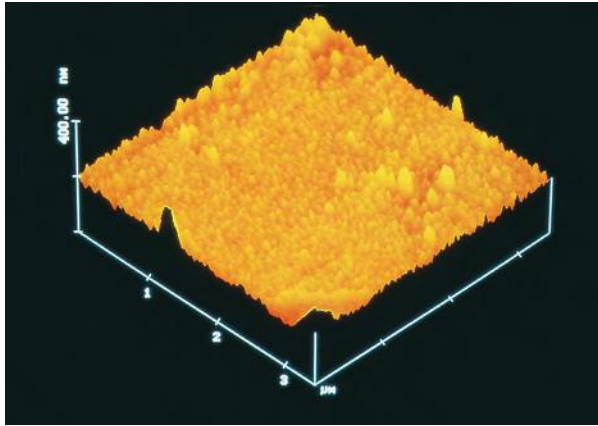
- Improved adhesion characteristics of small halftone dots and fine lines
- Even and consistent surface characteristics, enhanced for extreme durability
- Excellent ink release properties
- No degreasing pretreatment step prior to stencil processing, thanks to SAATI **unique plasma surface treatment**
- Excellent for use with abrasive printing conditions, inks and pastes.

OTHER ADVANTAGES

- Safer with under exposure with all emulsion types: Photopolymer, Dual Cure, Diazo and Capillary Films.
- No degreasing required under normal circumstances
- Reduces static build-up during printing
- Allows further productivity improvements using the newest computer-to-screen technologies
- Enhanced quality inspection system for highlighting and marking main visual defects.

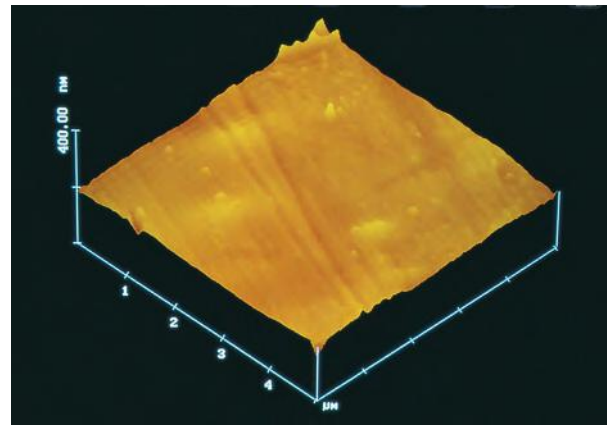
Hi-Glass Fabric

Microsection of fabric surface (AFM Microphoto)
from Plasma treated fabric

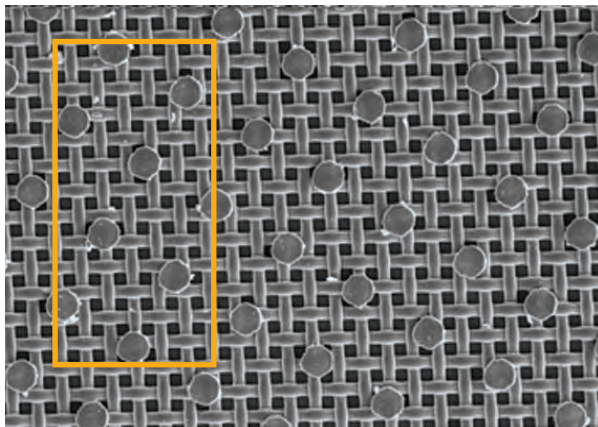


Conventional Fabric

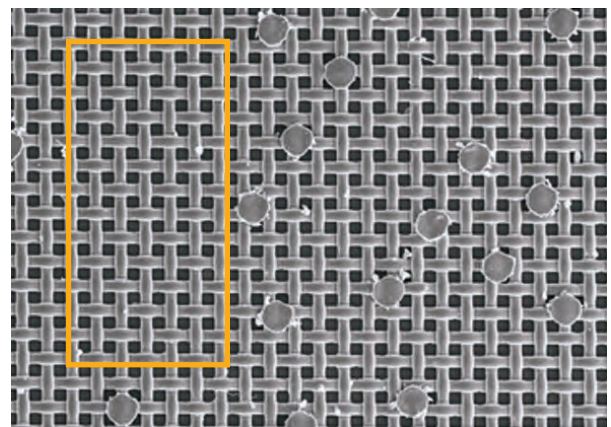
Microsection of fabric surface (AFM Microphoto)
from conventional fabric



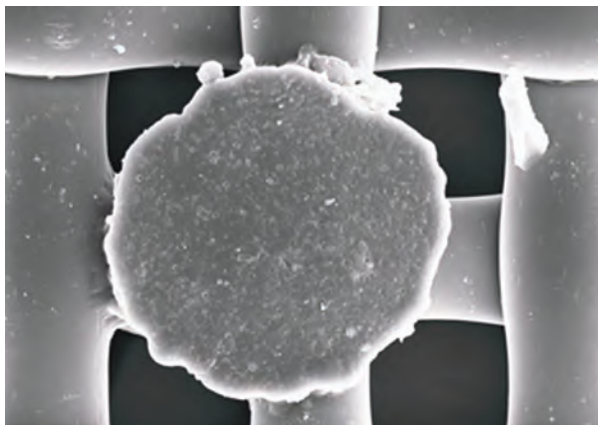
Plasma treated mesh halftone area
with no stencil loss



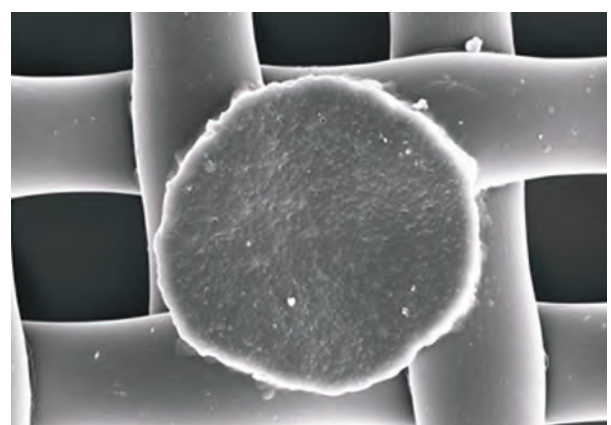
Conventional mesh halftone area
with halftone dots missing



Water droplets on fabrics
with plasma treatment

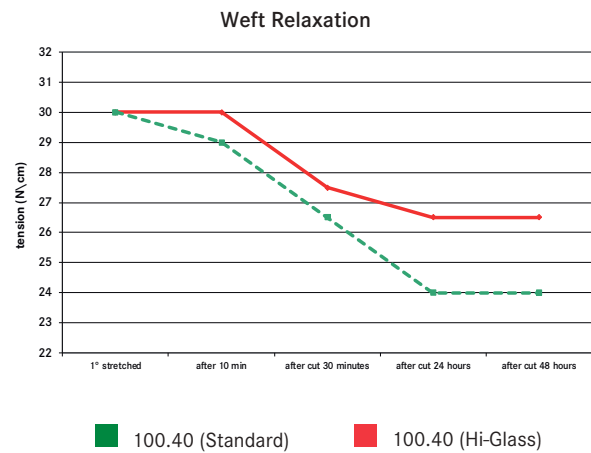
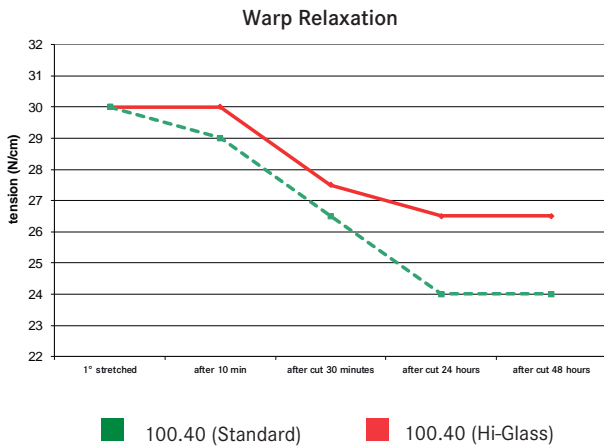
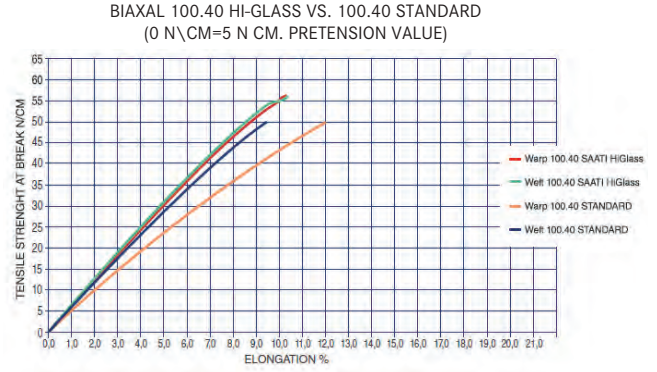


Water droplets on conventional fabrics



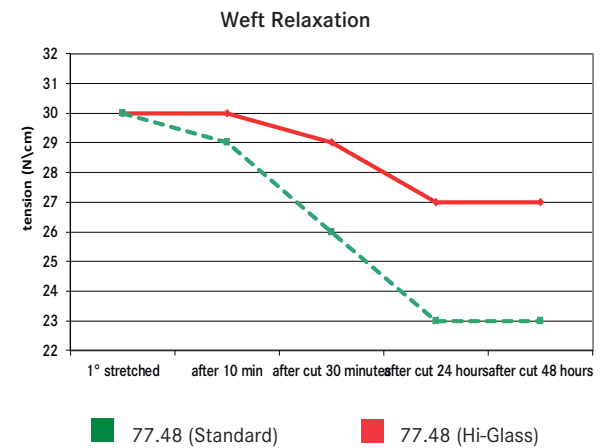
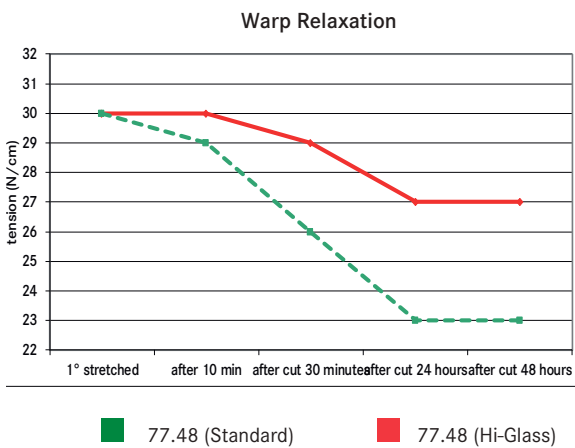
100.40 SAATI HI-GLASS vs 100.40 STANDARD

	100.40 (HI-GLASS)		100.40 (STANDARD)	
	WARP	WEFT	WARP	WEFT
1° stretched	40	40	40	40
after 10 min	40	40	39	39
SCREEN GLUED				
after cut 30 minutes	37,5	37,5	36	36
after cut 24 hours	36,5	36,5	34	34
after cut 48 hours	36,5	36,5	34	34
loss N/cm	3,5	3,5	6	6
elong. after 10 min.	4,5%	4,5%	5%	5%



77.48 SAATI HI-GLASS vs 77.48 STANDARD

	77.48 (HI-GLASS)		77.48 (STANDARD)	
	WARP	WEFT	WARP	WEFT
1° stretched	40	40	40	40
after 10 min	40	40	38	39
SCREEN GLUED				
after cut 30 minutes	39	39	36	36
after cut 24 hours	37	37	33	33
after cut 48 hours	37	37	33	33
loss N/cm	3	3,5	7	7
elong. after 10 min.	4%	4,5%	5,5%	6,5%



SAATILENE HI-GLASS FOR AUTOMOTIVE INDUSTRY

Technical Data

Article	Mesh count		Nominal thread diameter	Mesh opening	Open Area	Fabric thickness	Theoretical ink volume	Specific cross-section	Maximum recommended tension from-to
	n°/cm	n°/inch	µm	µm	%	µm	cm ³ /m ²	mm ² /cm	N/cm
PE AM 55.64 PW	55	140	64	120	41	98	42	0,177	26-31
PE AM 62.64 PW	62	158	64	90	32	94	29	0,199	30-34
PE AM 68.55 PW	68	173	55	89	36	79	29	0,161	25-30
PE AM 71.55 PW	71	180	55	80	33	86	28	0,169	25-30
PE AM 77.48 PW	77	196	48	78	36	78	28	0,139	24-26
PE AM 77.55 PW	77	196	55	70	28	90	26	0,183	27-32
PE AM 90.40 PW	90	230	40	68	38	63	24	0,113	20-24
PE AM 90.48 PW	90	230	48	55	27	81	22	0,163	27-29
PE AM 100.40 PW	100	255	40	55	31	63	20	0,126	26-28
PE AM 120.34 PW	120	305	34	45	29	54	16	0,109	24-26

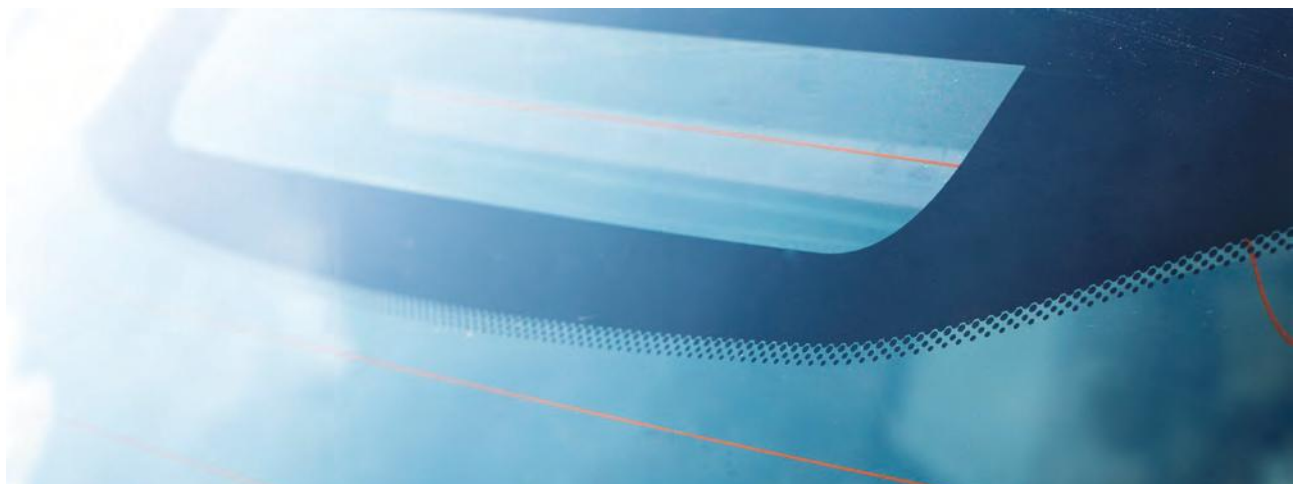
Widths Range Availability and Applications

Article	BS	CS	DS	ES	FS	GS	Application
cm	134-139,9	155-161,9	184-189,9	210-215,9	232-235,9	252-256,9	
inch	52,8-52,1	61-63,7	72,4-74,8	82,7-85	91,3-92,9	99,2-101,1	
PE AM 55.64 PW	X	X	X	X	X		black-band
PE AM 62.64 PW	X	X	X	X	X		black-band
PE AM 68.55 PW	X	X					black-band
PE AM 71.55 PW	X	X	X	X	X		black-band
PE AM 77.48 PW	X	X	X	X	X	X	heat-grid
PE AM 77.55 PW	X	X	X	X	X	X	black-band
PE AM 90.40 PW	X	X	X	X	X		heat-grid
PE AM 90.48 PW	X	X	X	X	X	X	black-band
PE AM 100.40 PW	X	X	X	X	X	X	black-band
PE AM 120.34 PW	X	X	X	X	X		top roof

The above data are average values measured on piece-good in relaxed state, manufactured with yarns of a perfect nominal diameter (cfr. international standards), under normal hygrometric conditions (20°C=68°F, 65% relative humidity). They are subject to normal variations up to 7% if conditions vary from those stated above. 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, in accordance with our policy of continuously improving our products.

The tension tests are realised with TOP 12 plus series clamp system and appropriate frames at our laboratories.

PW: Plain Weave (1:1).



SAATILENE HI-GLASS FOR ARCHITECTURE

Technical Data

Article	Mesh count		Nominal thread diameter	Mesh opening	Open Area	Fabric thickness	Theoretical ink volume	Specific cross-section	Maximum recommended tension from-to
	n°/cm	n°/inch	µm	µm	%	µm	cm ² /m ²	mm ² /cm	N/cm
PE AM 34.100 PW	34	86	100	185	41	173	71	0,267	35-40
PE AM 43.80 PW	43	110	80	150	43	138	59	0,216	35-37
PE AM 49.70 PW	49	125	70	130	40	116	46	0,188	30-34
PE AM 55.64 PW	55	140	64	120	41	105	43	0,177	26-31
PE AM 62.64 PW	62	158	64	90	32	94	29	0,199	30-34
PE AM 68.55 PW	68	173	55	89	36	89	32	0,161	25-30
PE AM 71.55 PW	71	180	55	80	33	93	31	0,169	25-30
PE AM 77.48 PW	77	196	48	78	36	78	28	0,139	24-26
PE AM 77.55 PW	77	196	55	70	28	90	25	0,183	27-32
PE AM 90.40 PW	90	230	40	68	38	62	24	0,113	20-24
PE AM 90.48 PW	90	230	48	55	27	81	22	0,163	27-29
PE AM 120.34 PW	120	305	34	45	29	54	16	0,109	24-26
PE AM 120.40 PW	120	305	40	38	20	67	13	0,151	27-32

Widths Range Availability

Article	GS	HS	IS	LS
cm	252-256,9	303-309,9	363-369,9	399-404,9
inch	99,2-101,1	119,3-122	142,9-145,6	157,1-159,4
PE AM 34.100 PW	X	X	X	X
PE AM 43.80 PW	X	X	X	X
PE AM 49.70 PW	X	X	X	X
PE AM 55.64 PW	X	X	X	X
PE AM 62.64 PW	X	X	X	X
PE AM 68.55 PW	X	X	X	X
PE AM 71.55 PW	X	X	X	X
PE AM 77.48 PW	X	X	X	X
PE AM 77.55 PW	X	X	X	X
PE AM 90.40 PW	X	X	X	X
PE AM 90.48 PW	X	X	X	X
PE AM 120.34 PW	X	X	X	X
PE AM 120.40 PW	X	X	X	X

The above data are average values measured on piece-good in relaxed state, manufactured with yarns of a perfect nominal diameter (cfr. international standards), under normal hygrometric conditions (20°C=68°F, 65% relative humidity). They are subject to normal variations up to 7% if conditions vary from those stated above. 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, in accordance with our policy of continuously improving our products.

The tension tests are realised with TOP 12 plus series clamp system and appropriate frames at our laboratories.

PW: Plain Weave (1:1).



SAATILENE HI-GLASS FOR HOUSE APPLIANCES

Technical Data

Article	Mesh count		Nominal thread diameter	Mesh opening	Open Area	Fabric thickness	Theoretical ink volume	Specific cross-section	Maximum recommended tension from-to
	n°/cm	n°/inch	µm	µm	%	µm	cm ² /m ²	mm ² /cm	N/cm
PE AM 43.80 PW	43	110	80	150	43	138	59	0,216	35-37
PE AM 49.70 PW	49	125	70	130	40	116	46	0.188	30-34
PE AM 51.70 PW	51	130	70	120	38	118	45	0.196	30-35
PE AM 55.64 PW	55	140	64	120	41	105	43	0,177	26-31
PE AM 62.64 PW	62	158	64	90	32	106	34	0.199	30-34
PE AM 68.55 PW	68	173	55	89	36	89	32	0.161	25-30
PE AM 71.55 PW	71	180	55	80	33	93	31	0,169	25-30
PE AM 77.48 PW	77	196	48	78	36	78	28	0.139	24-26
PE AM 77.55 PW	77	196	55	70	28	90	25	0,183	27-32
PE AM 90.48 PW	90	230	48	55	27	81	22	0,163	27-29
PE AM 100.40 PW	100	255	40	55	31	63	20	0,126	26-28
PE AM 120.34 PW	120	305	34	45	29	54	16	0.108	24-26
PE AM 140.31 PW	140	355	31	38	28	48	13	0,106	20-22

Widths Range Availability

Article	AS	BS	CS	DS
cm	113-118,9	134-139,9	155-161,9	184-189,9
inch	44,5-46,81	52,8-55,1	61-63,7	72,4-74,8
PE AM 43.80 PW	X	X	X	X
PE AM 49.70 PW	X	X	X	X
PE AM 51.70 PW	X	X	X	X
PE AM 55.64 PW	X	X	X	X
PE AM 62.64 PW	X	X	X	X
PE AM 68.55 PW	X	X	X	X
PE AM 71.55 PW	X	X	X	X
PE AM 77.48 PW	X	X	X	X
PE AM 77.55 PW	X	X	X	X
PE AM 90.48 PW	X	X	X	X
PE AM 100.40 PW	X	X	X	X
PE AM 120.34 PW	X	X	X	X
PE AM 140.31 PW	X	X	X	X

The above data are average values measured on piece-good in relaxed state, manufactured with yarns of a perfect nominal diameter (cfr. international standards), under normal hygrometric conditions (20°C=68°F, 65% relative humidity). They are subject to normal variations up to 7% if conditions vary from those stated above. 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, in accordance with our policy of continuously improving our products.

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