

## Fabrics for Automotive&Aerospace - Screen Printing

### Functional Decoration

#### ■ Saatilene Hi-Glass

Exclusively developed for glass screen printing industry, Saatilene Hi-Glass is an innovative high modulus, low elongation monofilament polyester screen printing fabric with a proprietary surface treatment.

Its excellent dimensional stability improves the printing registration, while its uniform mesh openings and fabric thickness guarantee controlled ink deposit.



#### 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.

## 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 <sup>3</sup> /m <sup>2</sup>	mm <sup>2</sup> /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

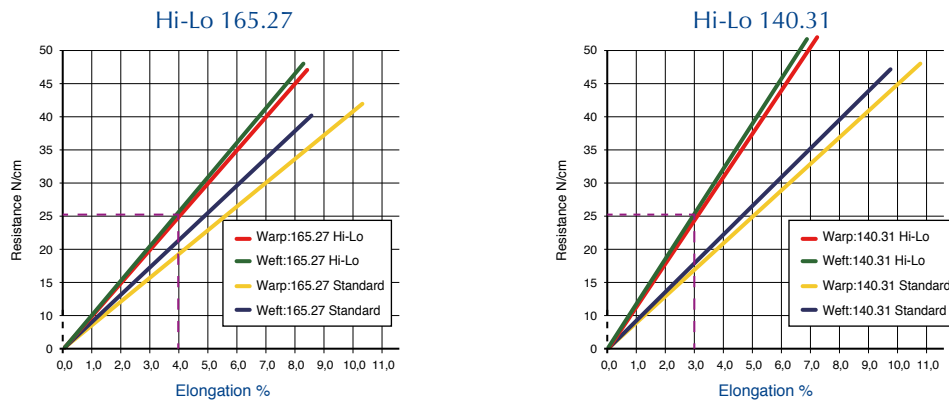
Article	BS	CS	DS	ES	FS	GS	Application
cm	134-139,9	155-161,9	184-189,9	210-215,9	232-235,9	252-256,9	
inch	52,8-52,1	61-63,7	72,4-74,8	82,7-85	91,3-92,9	99,2-101,1	
PE AM 55.64 PW	X	X	X	X	X		black-band
PE AM 62.64 PW	X	X	X	X	X		black-band
PE AM 68.55 PW	X	X					black-band
PE AM 71.55 PW	X	X	X	X	X		black-band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

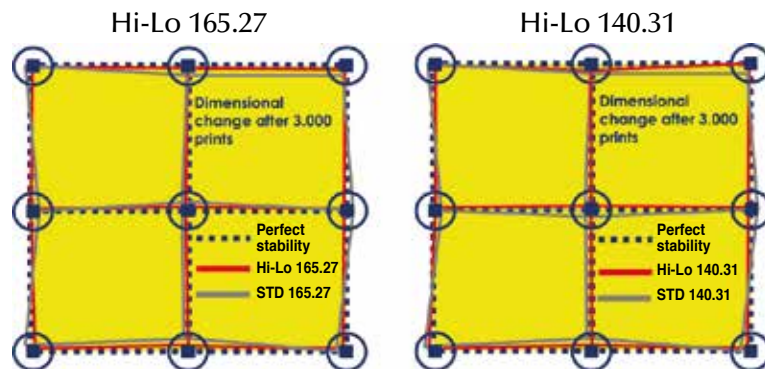
Saatilene Hi-Lo (Hibond Low Elongation) is a super high modulus monofilament polyester mesh especially developed for the TSP market, which requires a very high image precision.

Saati uses a special fiber whose polymeric structure gives extraordinary physical & mechanical properties to the product:



1) The extremely low and balanced elongation between warp and weft grants a higher dimensional stability. The Hi-Lo warp & weft overlapping is almost perfect. At 25N tension level the Hi-Lo 140.31 elongation percentage is around 3%, whereas the Hi-Lo 165.27 is around 4%.

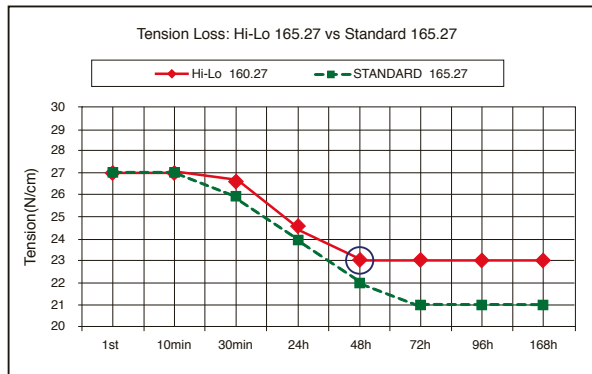
Graph: dimensional stability



2) The extremely low mesh relaxation, which guarantees:

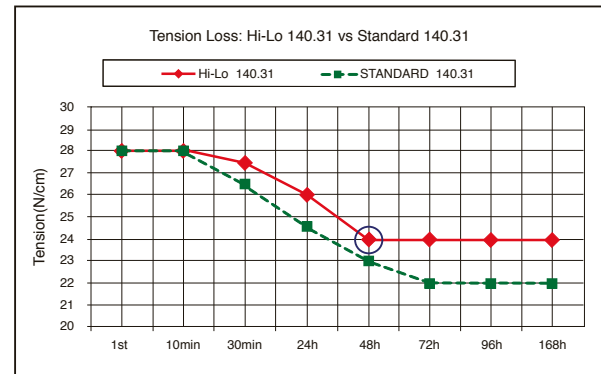
- Low tension loss after stretching.
- Mesh ready to use in less time, as it can be brought up to the required tension quicker.
- Printing Quality consistency and improved ink flow during all production run.

**TENSION LOSS:  
HI-LO 165.27 & STANDARD 165.27**



Hi-Lo 165.27 final tension after relaxation is around 23N/cm with 4N tension loss.

**TENSION LOSS:  
HI-LO 140.31 & STANDARD 140.31**



Hi-Lo 140.31 final tension after relaxation is around 24N/cm with 4N tension loss.

3) The exclusive plasma treatment is able to modify the mesh surface. As a result, the mesh's hydrophilic behaviour eases the emulsion adhesion on its surface.

**ADVANTAGE**

- A longer printing life of the stencil and a higher printing quality in terms of resolution and definition.
- The degreasing process is no longer needed: better manufacturing efficiency and lower costs.

**Technical Data**

Saatilene Hi-Lo is our premium product line and represents the Saati specialty for the TP market. The Hi-Lo product range is made up by Hi-Lo 165.27, Hi-Lo 150.27, Hi-Lo 150.33, Hi-Lo 140.31 and Hi-Lo 120.34.

Our Key product in the TP market is the Hi-Lo 165.27.

Article	Mesh count	Mesh count	Nominal thread diameter	Mesh opening	Open Area	Fabric thickness	Theoretical ink volume	Specific cross-section	Typical tension after relaxation
	n°/cm	n°/inch	µm	µm	%	µm	cm <sup>3</sup> /m <sup>2</sup>	mm <sup>2</sup> /cm	N/cm
PE AM 120.34 PW	120	305	34	45	29	54	16	0,109	23
PE AM 140.31 PW	140	356	31	35	25	45	11	0,106	24
PE AM 150.27 PW	150	380	27	36	29	42	12	0,086	21
PE AM 150.33 PW	150	380	33	25	14	50	7	0,128	24
PE AM 165.27 PW	165	420	27	29	23	42	10	0,094	23

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.  
PW: Plain Weave (1:1).