

SEFAR® PET 1500

Product description

SEFAR® PET 1500 the most comprehensive range of screen printing mesh for an efficient and reproducible stencil production. It meets all the requirements for detail reproduction, homogeneity of face printing, print run consistency and registration accuracy in multi-color printing. The special SEFAR® PET 1500 surface treatment aims to improve adhesion, good wettability and good antistatic properties. These features allow a high quality and efficient processing of all commercially available screen printing systems.

Applications

- Ceramics
- Glass
- Plastic and packaging
- Electronics
- Graphics
- Textiles

Mesh properties	Technical data*	Unit
Yarn material	High modulus polyester	PET
Color of mesh	White / Yellow	W / Y
Weave	1:1 / 2:2, 2:1	PW / TW

Scope of product range (Minimum to maximum values)

Mesh count	10 (25)	190 (480)	cm ⁻¹ (inch ⁻¹)
Tol. of mesh count	1 (3)	5 (13)	cm ⁻¹ (inch ⁻¹)
Thread diameter nominal**	27	260	Ø in µm
Mesh opening	16	739	µm
Mesh thickness	42	498	µm
Tol. of mesh thickness	2	35	µm
Open area	9	68	%
Theoretical ink volume	5	272	cm ³ /m ²

*All values refer to untensioned mesh. **Thread diameter nominal before weaving.

Stress-strain characteristics

Chart 1 shows the stress-strain behavior of virgin mesh (Size: 20 cm x 5 cm). The test is performed according to ISO 13934-1 and is evaluated according to DIN 53804.

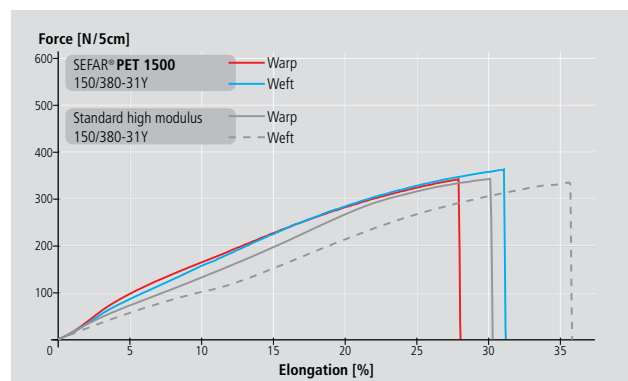
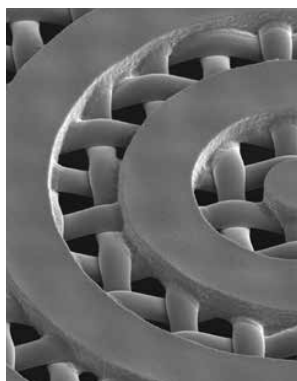


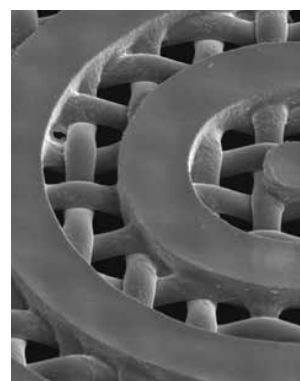
Chart 1: Stress-strain characteristics

UV-light undercutting protection

The yellow dyed SEFAR® PET 1500 mesh absorbs the incident UV-A radiation, thus enabling extremely sharp-edged stencil copies.



UV-light undercutting protection
SEFAR® PET 1500 120/305-34Y



UV-light undercutting protection
120/305-34Y of competitors

Guaranteed tension values

Chart 2 shows the max. guaranteed tension values for a frame size of 1 m x 1 m, slope profile 50/40 mm x 38 mm x 3.2/2.0 mm). For larger frame and stretching sizes, the guaranteed tension value must be reduced by approximately 4 % for each 0.5 m additional side length.

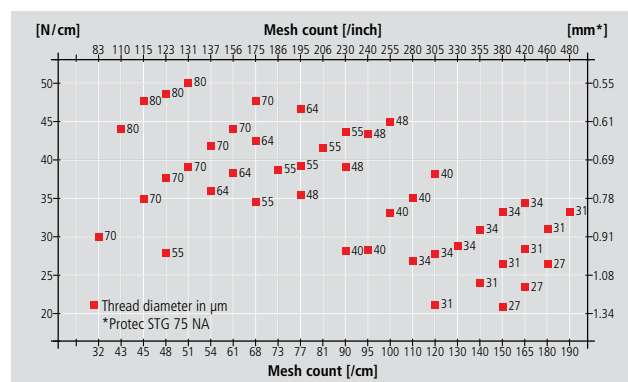
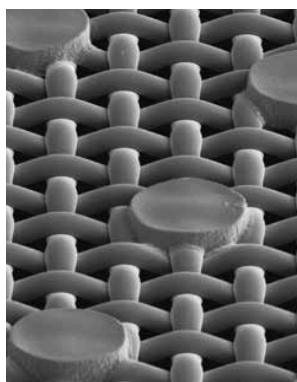


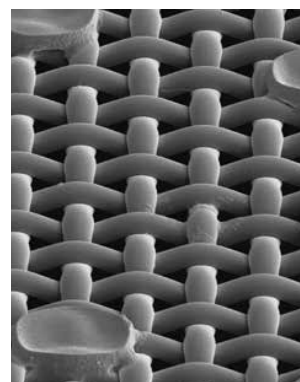
Chart 2: SEFAR® PET 1500 – guaranteed tension values

Surface treatment

The SEFAR® PET 1500 surface treatment ensures optimum adhesion, good wettability and favorable antistatic properties – ideal for high quality and efficient processing of all the commercially-available screen printing stencil systems.



Stencil adhesion
SEFAR® PET 1500 120/305-34Y

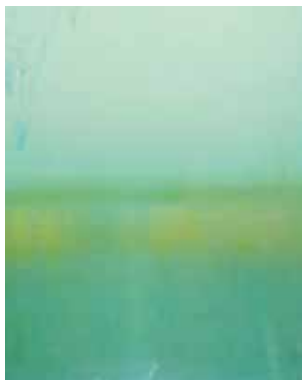


Stencil adhesion
120/305-34Y of competitors

SEFAR® PET 1500

Screen wettability

The wettability behaviour of SEFAR® PET 1500 also allows easy processing of capillary films.



Mesh wettability SEFAR® PET 1500
120/305-34Y



Untreated PET mesh 120/305-34Y

Label and roll lengths

The labeling contains important information for further processing:

- Product line and mesh number
- Mesh count and mesh count tolerance
- Mesh thickness and mesh thickness tolerance
- Mesh width and mesh width tolerance (-0 cm / +6 cm)
- Weave type
- Gross roll length
- Invoiced roll length
- Piece number
- Date of fabrication
- Sefar identification code (SefID)

Identification of sales roll	Roll length including tolerance
4AT120034P158Y0D	25 m +/-2,5 m
4AT120034P158Y0G	50 m +/-5 m
4AT120034P158Y0L	20 m +2,49 m/-19,9 m
4AT120034P158Y0F	40 m +30 m/-12,49 m

Chemical resistance of polyester

Polyester is generally acid resistant. However, high concentrations of strong acids in conjunction with high temperatures can limit the resistance. Alkali-resistance is limited. Ghost image removers generally contain alkaline substances. Instructions supplied by the manufacturers should be rigorously followed. Chlorine can cause bleaching of yellow-colored mesh. Polyester is resistant to all stencil cleaning solvents recommended for screen printing.

Processing instructions

The values given in chart 2 are in accordance with DIN 16610 16611/DIN (Screen printing industry standard), measured with the SEFAR® Tensoscheck 100 and can only be guaranteed if the clamping system and the materials in use are adequate and meet the following requirements:

- SEFAR® 3A clamps or a pneumatic clamping system that ensures consistent and balanced tension
- Regularly maintained and clean clamps that are free from impurities that may damage the mesh during stretching
- A clamping system having sufficient clamping pressure (Prevents the mesh from slipping out)
- Suitable frame conditions (Profile, age, material and deformation)
- Proper condition of the frame surface (No dust or grease)
- Adequate pre-tensioning of the frame during the stretching process
- Quality, age and curing time of the adhesive system

Test conditions: All values refer to the following climatic conditions: Temperature 22 ± 2 °C, relative humidity of $50 \pm 10\%$. Aggressive chemicals and improper storage can negatively affect the physical properties of the mesh.

Note

The product data stated here and our advice on application technology, in verbal and written form and on the basis of tests and experiments, are provided to the best of our knowledge and belief; however, this information must be regarded as non-binding. It is based on our current knowledge and experience, and on standardized process and test conditions as per DIN standards 16610 / 16611 / 53804 and ISO 13934-1 / 5084. As many variations may occur due to each specific application, we are unable to provide an overall assessment regarding the range of fluctuations for processes and follow-up processes (i.e. parameters, interactions with materials and machines used, and chemical reactions). For this reason, the parameters we recommend should be understood merely as values for guidance purposes. All the illustrations, descriptions, data, diagrams and tables, etc., shown here may change without prior notice, and they do not represent the contractually agreed characteristics of the product. It is impossible for us to have control over the post-processing of our products, so the user is solely responsible in this regard. Our products are sold and distributed in accordance with the latest version of our General Terms and Conditions of Sale and Delivery.



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