

**SEFAR® PA**

**Product description**

SEFAR® PA polyamide screen printing mesh is suitable for applications where highly abrasive inks are used and wherever the stencil has to fit to a shaped substrate. Typical applications, for example, containers that are subject to small dimensional changes between the individual pieces. This can be compensated when using SEFAR® PA due to its elasticity. SEFAR® PA therefore suits very well for tiles and other printing substrates having rough surfaces.

**Applications**

- Plastic containers
- Glass hollow ware
- Tiles

| Mesh properties | Technical data* | Unit    |
|-----------------|-----------------|---------|
| Yarn material   | Polyamide       | PA 6.6  |
| 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) | 200 (510) | cm <sup>-1</sup> (inch <sup>-1</sup> ) |
| Tol. of mesh count        | 1 (2)   | 5 (11)    | cm <sup>-1</sup> (inch <sup>-1</sup> ) |
| Thread diameter nominal** | 30      | 350       | Ø in µm                                |
| Mesh opening              | 18      | 640       | µm                                     |
| Mesh thickness            | 50      | 610       | µm                                     |
| Tol. of mesh thickness    | 3       | 31        | µm                                     |
| Open area                 | 13      | 47        | %                                      |
| Theoretical ink volume    | 8       | 250       | cm <sup>3</sup> /m <sup>2</sup>        |

\*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.

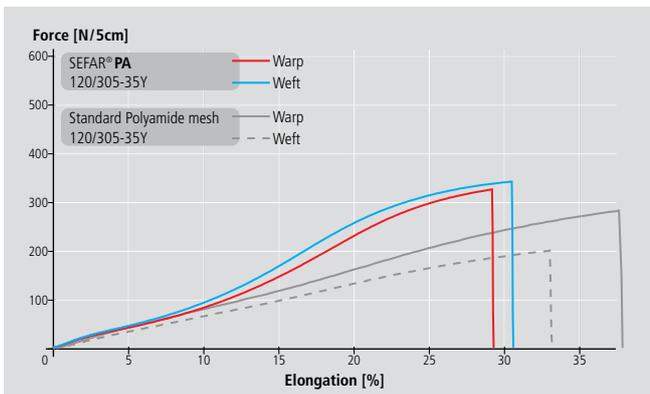


Chart 1: Stress-strain characteristics

**Abrasion resistance**

SEFAR® PA has excellent abrasion resistance and is therefore suitable for applications that require the use of highly abrasive inks; for example screen printing on tiles.



SEFAR® PA after 5.000 prints

**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).

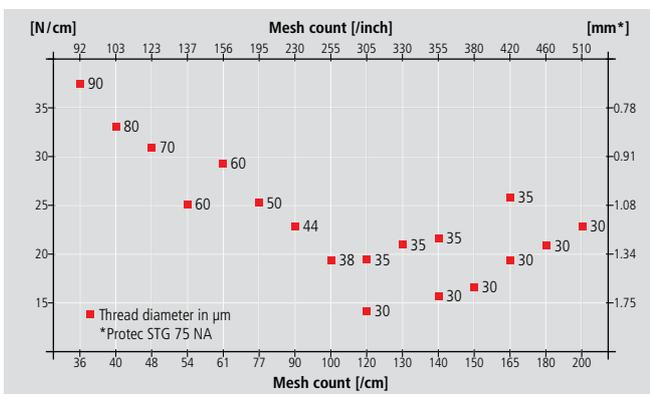


Chart 2: SEFAR® PA - guaranteed tension values



Standard PET mesh after 5.000 prints


**SEFAR® PA**
**Physical properties of polyamide PA 6.6**

- Very good mechanical durability
- High abrasion resistance
- Good wetting abilities
- High elasticity
- Good dimensional recovery characteristics

**Chemical resistance of polyamide PA 6.6**

Polyamide PA 6.6 is generally alkali resistant, but sensitive to acids. Fibres are either weakened or destroyed, depending on concentration, temperature and reaction time.

**Processing instructions**

The values given in chart 2 are in accordance with DIN 16610 16611/DIN (Screen printing industry standard), measured with the SEFAR® Tensocheck 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

**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 / +4 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 |
|------------------------------|---------------------------------|
| 4AE077055P158Y0E             | 30 m +/-3 m                     |
| 4AE077055P158Y0G             | 50 m +/-5 m                     |
| 4AE077055P158Y0L             | 15 m +11,9 m/-10 m              |

**Test conditions:** All values refer to the following climatic conditions: Temperature  $22 \pm 2$  °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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