

Sefar Screen Printing Catalogue



S E F A R
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Exactly what counts: Sefar

When you choose Sefar, your innovative specialist in screen printing meshes, you choose efficiency, quality and value-for-money, ensured by expert service and customer dedication.

Sefar offers you solutions to the unique challenges of your screen printing industry and projects.

We follow the needs of our customers in:

- Ceramics
- Electronics
- Glass
- Graphics
- Plastics and packaging
- Solar
- Textiles

We develop solutions for screen printing: Sefar. Intelligent mesh solutions.

Our offer. Your benefit:

- Technology and quality of the world's leading manufacturer
- Wide product range for all requirements from stock
- Innovative products providing maximum efficiency
- Individual support for your printing projects
- Lean, efficient production, in both stencil preparation and the printing process
- Sustainability, safety and reliability of supply to the finished printed product
- Local, world-wide cooperative partnerships with Sefar's support teams
- Increase the competitiveness of your business

Content



4 Sefar screen printing mesh

- 6 SEFAR® PET 1500 – Article list
- 8 SEFAR® PME – Article list
- 9 SEFAR® PA – Article list
- 10 SEFAR® PCF – Article list

11 Swiss mesh technology

12 Sefar quality, packaging and labeling

14 Sefar screen printing accessories

- 15 SEFAR® 3A – Stretching clamps
- 15 SEFAR® 2 – Stretching clamps
- 16 Single and dual-circuit Sefar pneumatic systems
- 17 Sefar measurement devices

18 Focusing on the customer

- 20 Sefar screen printing documents
- 24 Sefar worldwide



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Sefar screen printing mesh

Print solutions from Sefar can be found in an almost infinite number of objects that are printed and produced, which touch our lives every day: cars, glass, cell- and smartphones, electronics, billboards, textiles, packagings, ceramics and tiles, solar cells and many more. Sefar is the world market leader in screen printing mesh products. It supplies many different printing and manufacturing industries with advanced mesh products and systems solutions.

SEFAR® PET 1500 The screen printing mesh professionals use

SEFAR® PET 1500 is the best stencil carrier for an almost infinite number of screen printing applications – the most wanted for decoration of any printable substrate. SEFAR® PET 1500 is available in the largest range of different screen printing mesh types.

Applications

SEFAR® PET 1500 impresses with its performance in a wide variety of applications, ranging from graphic screen printing in small and large sizes, such as posters, displays, and signage; printing on plastics such as sporting goods, thermoformed parts, etc.; on the decoration of ceramic, directly or indirectly, and on up to textile printing and other industrial printing tasks.

SEFAR® PME The best performing screen printing mesh

SEFAR® PME is the best performing range of screen printing mesh for printers who need to expand the capabilities of their screen printing process. The mesh is made from an innovative, high modulus, high tensile strength yarn developed and manufactured by Sefar. This screen printing mesh solution offers stencil makers and printers maximum precision in extremely tight tolerances. SEFAR® PME enables the efficient and reliable production of stencils that allow for printing of the most demanding, high volume products – meeting the highest quality demands.

Applications

SEFAR® PME has proven unbeatable, especially when going to the limits of what is possible in screen printing, particularly in the industrial production of printed electronic components and functional coatings as well as in all other applications that require highest screen printing performance.

SEFAR® PA The polyamid mesh of choice for object and tile printing

SEFAR® PA is based on polyamide yarn, known worldwide also as nylon. SEFAR® PA is characterized by excellent mechanical properties and ease of processing. SEFAR® PA is ideal for printing applications using abrasive inks such as the ceramic industry and its high elasticity is ideal for applications where the stencil has to fit to shaped substrates.

Applications

SEFAR® PA is suitable for applications that require the use of highly abrasive colors and wherever the stencil has to fit to shaped substrates: For example, printing on tiles, plastic or glass containers.

SEFAR® PCF The pre-coated screen printing mesh – expose, develop, dry – print

SEFAR® PCF, ready-made print forms in constant top quality. SEFAR® PCF is the innovative, unique pre-coated screen printing mesh for industrial screen printing and ensures superior print quality and efficiency. This innovative screen printing breakthrough is clean, space saving and environmental friendly.

Applications

Expand your options with SEFAR® PCF for screen printing on plastic containers, labels, glass ware, optical discs and many other challenging print substrates.

SEFAR® PET 1500 – Article list

SEFAR® PET 1500										
Mesh number	Mesh count [cm]	Mesh count [inch]	Thread diameter nominal [µm]	Weave	Tolerance of mesh count [± n/cm]	Mesh opening [µm]	Open area [%]	Mesh thickness (woven) [µm]	Tolerance of mesh thickness [± µm]	Theoretical ink volume [cm³/ m²]
190/480-31 TW	190	480	31	2:2	5.0	16	9	54	3	5
180/460-31 TW	180	460	31	2:2	4.5	23	17	54	3	9
180/460-27 PW	180	460	27	1:1	4.5	22	16	42	3	7
165/420-34 TW	165	420	34	2:2	4.0	23	14	60	3	9
165/420-31 PW	165	420	31	1:1	4.0	23	14	47	3	7
165/420-27 PW	165	420	27	1:1	4.0	29	23	42	3	10
150/380-34 TW	150	380	34	2:1	4.0	26	15	59	3	9
150/380-34 PW	150	380	34	1:1	4.0	23	12	54	3	6
150/380-31 PW	150	380	31	1:1	4.0	32	23	45	3	10
150/380-27 PW	150	380	27	1:1	4.0	36	29	41	3	12
140/355-34 TW	140	355	34	2:1	3.5	32	20	59	3	12
140/355-34 PW	140	355	34	1:1	3.5	31	19	52	3	10
140/355-31 PW	140	355	31	1:1	3.5	36	25	46	3	12
130/330-34 PW	130	330	34	1:1	3.5	40	27	53	3	14
120/305-40 PW	120	305	40	1:1	3.0	37	20	62	4	12
120/305-34 PW	120	305	34	1:1	3.0	43	27	53	3	14
120/305-31 PW	120	305	31	1:1	3.0	49	35	46	3	16
110/280-40 PW	110	280	40	1:1	3.0	47	27	64	4	17
110/280-34 PW	110	280	34	1:1	3.0	54	35	53	3	19
100/255-40 PW	100	255	40	1:1	2.5	57	32	62	4	20
95/240-40-PW	95	240	40	1:1	2.5	62	35	62	4	22
90/230-48 PW	90	230	48	1:1	2.5	55	25	76	4	19
90/230-40 PW	90	230	40	1:1	2.5	68	37	61	4	23
77/195-55 PW	77	195	55	1:1	2.0	67	27	84	5	22
77/195-48 PW	77	195	48	1:1	2.0	77	35	78	4	27
71/180-55 PW	71	180	55	1:1	2.0	79	31	89	5	28
68/175-70 TW	68	175	70	2:1	1.5	70	23	120	6	27
68/175-64 PW	68	175	64	1:1	1.5	78	28	98	5	28
68/175-55 PW	68	175	55	1:1	1.5	85	33	86	5	29
61/156-70 PW	61	156	70	1:1	1.5	86	28	109	6	30
61/156-64 PW	61	156	64	1:1	1.5	90	30	100	5	30
54/137-70 PW	54	137	70	1:1	1.5	109	35	109	6	38
54/137-64 PW	54	137	64	1:1	1.5	115	39	100	5	39
51/131-70 PW	51	131	70	1:1	1.5	121	38	109	6	42
48/123-80 PW	48	123	80	1:1	1.2	122	34	124	7	43
48/123-70 PW	48	123	70	1:1	1.2	133	41	114	6	46

Subject to change without notice

SEFAR® PET 1500

Mesh number	Mesh count [cm]	Mesh count [inch]	Thread diameter nominal [μm]	Weave	Tolerance of mesh count [± n/cm]	Mesh opening [μm]	Open area [%]	Mesh thickness (woven) [μm]	Tolerance of mesh thickness [± μm]	Theoretical ink volume [cm³/ m²]
48/123-55 PW	48	123	55	1:1	1.2	151	53	88	5	46
45/115-80 PW	45	115	80	1:1	1.2	138	39	124	7	48
45/115-70 PW	45	115	70	1:1	1.2	150	46	108	6	49
43/110-90 PW	43	110	90	1:1	1.2	136	34	145	8	50
43/110-80 PW	43	110	80	1:1	1.2	149	41	130	7	53
40/103-80 PW	40	103	80	1:1	1.2	166	44	132	7	58
36/92-100 PW	36	92	100	1:1	1.2	174	39	163	9	64
36/92-90 PW	36	92	90	1:1	1.2	183	43	144	8	62
32/83-120 PW	32	83	120	1:1	1.2	191	37	210	11	78
32/83-100 PW	32	83	100	1:1	1.2	209	45	163	9	73
32/83-70 PW	32	83	70	1:1	1.2	240	59	116	6	68
30/76-120 PW	30	76	120	1:1	1.2	211	40	211	11	85
27/70-140 PW	27	70	140	1:1	1.0	222	36	245	13	88
27/70-120 PW	27	70	120	1:1	1.0	249	45	206	11	93
24/60-140 PW	24	60	140	1:1	1.0	270	42	248	13	104
24/60-120 PW	24	60	120	1:1	1.0	294	50	210	11	105
21/54-140 PW	21	54	140	1:1	1.0	333	49	255	13	125
18/45-180 PW	18	45	180	1:1	1.0	375	46	332	17	151
15/40-250 PW	15	40	250	1:1	1.0	417	39	415	21	162
15/40-200 PW	15	40	200	1:1	1.0	465	49	354	18	172
12/30-140 PW	12	30	140	1:1	1.0	688	68	267	14	182
10/25-350 PW	10	25	350	1:1	1.0	643	41	621	32	257
10/25-260 PW	10	25	260	1:1	1.0	740	55	470	24	257
8/20-300 PW	8	20	300	1:1	1.0	950	58	560	28	323

SEFAR® PET 1500 OSC (One side calendered)

165/420-34 TW OSC	165	420	34	2:2	4.0	19	10	56	2	6
150/380-31 PW OSC	150	380	31	1:1	4.0	30	20	42	2	9

Subject to change without notice

Roll lengths

Identification of sales roll	Roll length including tolerance
4AT120034P158Y0D	25 m +/-2,5 m
4AT120034P158Y0F	40 m +30 m/-12,4 m
4AT120034P158Y0G	50 m +/-5 m
4AT120034P158Y0L	15 m +7,4 m/-10 m

The best performing screen printing mesh

SEFAR® PME – Article list

SEFAR® PME										
Mesh number	Mesh count [cm]	Mesh count [inch]	Thread diameter nominal [μm]	Weave	Tolerance of mesh count [± n/cm]	Mesh opening [μm]	Open area [%]	Mesh thickness (woven) [μm]	Tolerance of mesh thickness [± μm]	Theoretical ink volume [cm ³ /m ²]
180/460-26 PW	180	460	26	1:1	3.0	24	19	41	2	8
165/420-26 PW	165	420	26	1:1	3.0	29	23	39	2	9
165/420-30 PW	165	420	30	1:1	3.0	26	17	46	2	8
150/380-30 PW	150	380	30	1:1	3.0	30	20	42	2	9
140/355-30 PW	140	355	30	1:1	3.0	35	24	42	2	10
130/330-30 PW	130	330	30	1:1	3.0	44	33	46	2	15
120/305-30 PW	120	305	30	1:1	3.0	52	38	45	2	17
120/305-35 PW	120	305	35	1:1	3.0	42	25	51	2	13
110/280-35 PW	110	280	35	1:1	3.0	53	34	52	3	18
100/255-40 PW	100	255	40	1:1	2.5	57	32	61	3	20
100/255-35 PW	100	255	35	1:1	2.5	61	37	51	3	19
71/180-48 PW	71	180	48	1:1	2.0	90	41	75	4	31

Subject to change without notice

Roll lengths

Identification of sales roll	Roll length including tolerance
4AS140030P158Y0D	25 m +/-2,5 m
4AS140030P158Y0F	40 m +30 m/-12,4 m
4AS140030P158Y0G	50 m +/-5 m
4AS140030P158Y0L	15 m +7,4 m/-10 m

The polyamid mesh of choice for object and tile printing

SEFAR® PA – Article list

SEFAR® PA										
Mesh number	Mesh count [cm]	Mesh count [inch]	Thread diameter nominal [μm]	Weave	Tolerance of mesh count [± n/cm]	Mesh opening [μm]	Open area [%]	Mesh thickness (woven) [μm]	Tolerance of mesh thickness [± μm]	Theoretical ink volume [cm ³ /m ²]
200/510-30 TW	200	510	30	2:2	5	18	13	57	3	7
180/460-30 TW	180	460	30	2:2	4.5	24	19	60	3	11
165/420-30 PW	165	420	30	1:1	4	28	21	47	3	10
150/380-30 PW	150	380	30	1:1	4	36	29	50	3	15
140/355-35 PW	140	355	35	1:1	3.5	34	23	56	3	13
140/355-30 PW	140	355	30	1:1	3.5	40	31	47	3	15
130/330-35 PW	130	330	35	1:1	3.5	41	28	56	3	16
120/305-35 PW	120	305	35	1:1	3	47	37	57	3	18
120/305-30 PW	120	305	30	1:1	3	51	37	49	3	18
100/155-38 PW	100	255	38	1:1	2.5	61	37	66	4	25
90/230-44 PW	90	230	44	1:1	2.5	66	35	74	4	26
77/195-50 PW	77	195	50	1:1	2	82	40	80	4	33
61/156-60 PW	61	156	60	1:1	1.5	103	39	100	5	39
54/137-60 PW	54	137	60	1:1	1.5	125	46	103	6	47
48/123-70 PW	48	123	70	1:1	1	136	43	128	7	55
40/103-80 PW	40	103	80	1:1	1	171	47	142	8	66
36/92-90 PW	36	92	90	1:1	1	190	47	158	8	74
24/60-160 PW	24	60	160	1:1	1	252	37	287	15	105
10/25-350 PW	10	25	350	1:1	1	640	41	610	31	250

Subject to change without notice

Roll lengths

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

The pre-coated screen printing mesh – expose, develop, dry – print

SEFAR® PCF – Article list

SEFAR® PCF FC

Mesh number	Mesh count [cm]	Mesh count [inch]	Thread diameter nominal [µm]	Weave	Coating	Mesh widths/ Emulsion width [cm]	Mesh widths/ Emulsion width [cm]	Mesh widths/ Emulsion width [inch]	Mesh widths/ Emulsion width [inch]	Emulsion over mesh (EOM) [µm]	Emulsion type	Mesh length [cm]	Mesh length [inch]
180/460-27 Y PW	180	460	27	1:1	Fully coated	115/99	158/142	45/39	62/56	3	Diazo UV polymer	∞	∞
180/460-31 Y TW	180	460	31	2:2	Fully coated		158/142		62/56	4	Diazo UV polymer	∞	∞
165/420-27 Y PW	165	420	27	1:1	Fully coated		158/142		62/56	4	Diazo UV polymer	∞	∞
165/420-31 Y PW	165	420	31	1:1	Fully coated	115/99	158/142	45/39	62/56	4	Diazo UV polymer	∞	∞
150/380-31 Y PW	150	380	31	1:1	Fully coated		158/142		62/56	7	Diazo UV polymer	∞	∞
150/380-31 Y PW	150	380	31	1:1	Fully coated	115/99	158/142	45/39	62/56	4	Diazo UV polymer	∞	∞
140/355-31 Y PW	140	355	31	1:1	Fully coated		158/142		62/56	7	Diazo UV polymer	∞	∞
140/355-31 Y PW	140	355	31	1:1	Fully coated	115/99	158/142	45/39	62/56	4	Diazo UV polymer	∞	∞
140/355-34 Y TW	140	355	34	2:1	Fully coated		158/142		62/56	6	Diazo UV polymer	∞	∞
140/355-34 Y PW	140	355	34	1:1	Fully coated		158/142		62/56	4	Diazo UV polymer	∞	∞
120/305-31 Y PW	120	305	31	1:1	Fully coated		158/142		62/56	5	Diazo UV polymer	∞	∞
120/305-34 Y PW	120	305	34	1:1	Fully coated		158/142		62/56	8	Diazo UV polymer	∞	∞
120/305-34 Y PW	120	305	34	1:1	Fully coated	115/99	158/142	45/39	62/56	5	Diazo UV polymer	∞	∞

The physical properties of SEFAR® PCF correspond to those of SEFAR® PET 1500.

SEFAR® PCF CD (Compact disc/optical disc)

This product is available customized on request. Alternatively with our standard emulsion or as HS (High speed) version.

SEFAR® PCF PC (Partially coated)

This product is available customized on request. Alternatively with our standard emulsion or as HS (High speed) version.

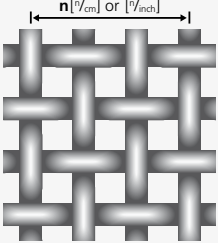
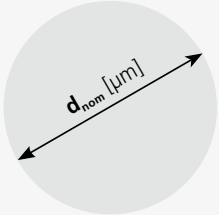
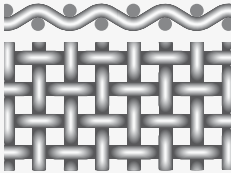
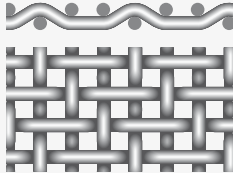
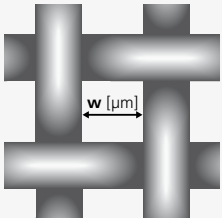

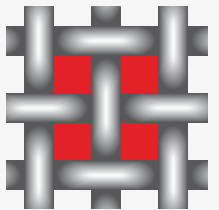
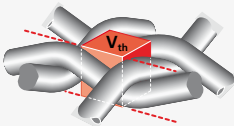
Roll lengths

Identification of sales roll	Roll length including tolerance
Invoiced length	30 m +/-20 m
Gross Length	30 m +40/-20 m

Swiss mesh technology made by Sefar

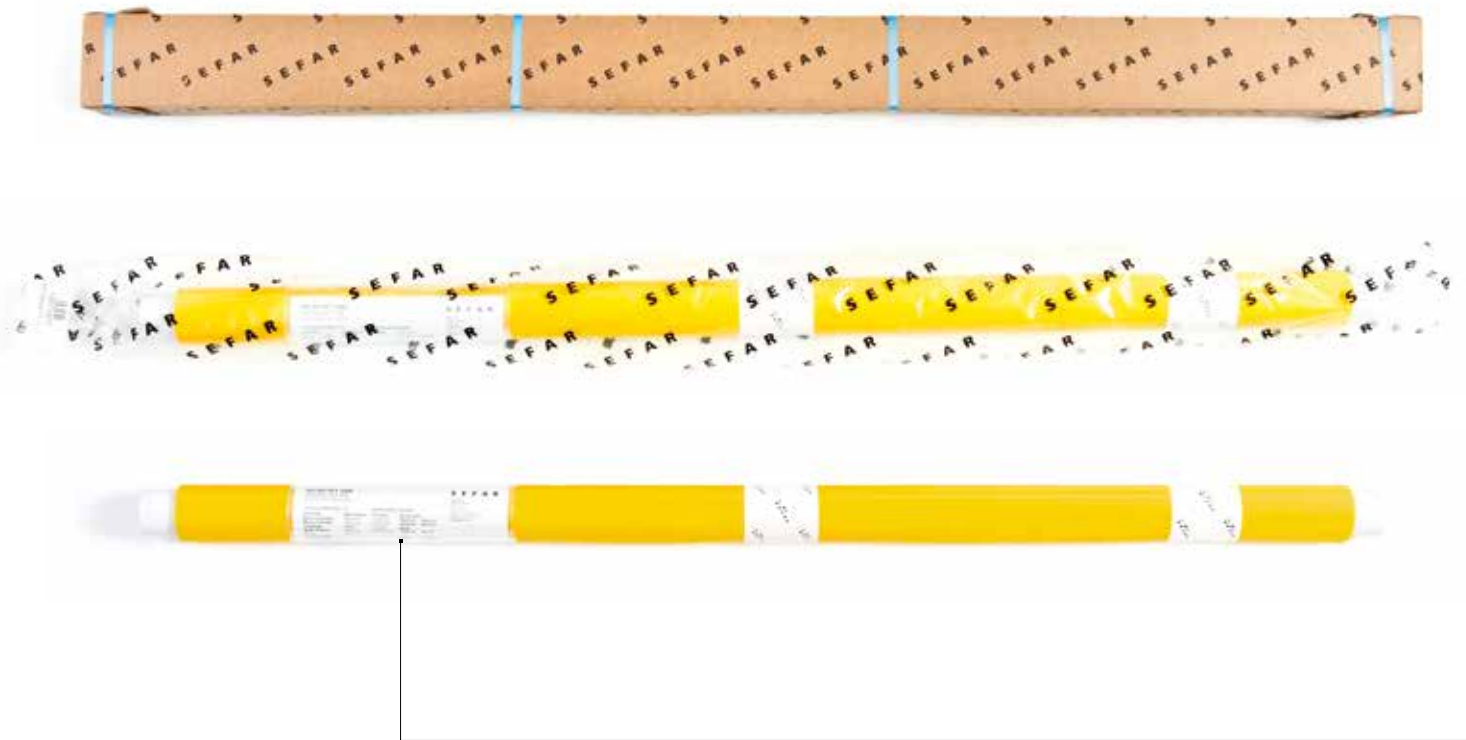
swiss
mesh
technology



165/420-31 Y PW				
				
Mesh number	Mesh count n [1/cm] or [1/inch]	Thread diameter nominal d_{nom} [μm]	Weave	
165/420-31 Y PW Mesh count 1/cm 165 Mesh count 1/inch 420 Thread-Ø d_{nom} 31 Mesh color Y Type of weave PW	The mesh count n stands for the number of threads per cm or inch. The tolerance is the defined range of the statistically ascertained mean values of mesh counts.	The diameter d_{nom} is measured on the thread before weaving.	Plain weave PW (1:1) Twill weave TW (2:1, 2:2)	
		 $\alpha_0 [\%] = \frac{w^2 \cdot 100}{(w + d)^2}$ $d_{nom} [\mu m] = \frac{10\,000}{n} - w$	 $V_{th} [cm^3/m^2] = \frac{\alpha_0 \cdot D}{100}$	W Y
Mesh opening w [μm]	Mesh thickness D [μm]	Percentage of open area α_0 [%]	Theoretical ink vo- lume V_{th} [cm³/m²]	Mesh color
The mesh opening w is the distance between two adjacent warp or weft threads.	The mesh thickness D is measured according to ISO 5084. The tolerance is the defined range of the statistically ascertained mean values of mesh thickness.	The percentage of open area α_0 is the sum of all mesh opening areas expressed as a percentage of the total screen area. It is calculated from the mean value of mesh openings and the actual diameter of the threads.	The theoretical ink volume V_{th} is calculated from the mesh thickness D and the percentage of open area α_0 .	White = W Yellow = Y

The abbreviations correspond with DIN Norm 16 611. All values correspond to unstretched mesh.

Sefar quality, packaging and labeling



Sefar quality

Alongside innovation and service, quality is one of the pillars of the Sefar brand identity. Quality permeates the product world and is at the same time a measure for services and processes within the company and outside of it.

Sefar's quality concept comprises three aspects: the individual product quality, the quality of the relationship to customers and partners, and the quality of service. Sefar is thus supplier and market partner at the same time. Sefar offers the customer complete solutions that consist of products, advice and onsite service.

The high level of expertise of Sefar employees in projects, customer relations and the distribution business as well as a comprehensive network of production manufacturing locations help in combining resources and in their efficient implementation.

An important part of the Sefar policy is the combination of quality with environmental responsibility. We understand this

as the responsibility of each employee to handle natural resources economically, with the design of products and with manufacturing processes. Most companies within the Sefar group have been certified to ISO 9001 and ISO 14001 for many years.

Sefar's management system for optimization of process cycles and product quality also conforms to the detailed guidelines of the automotive industry. The successfully passed certifications according to the process-oriented TS 16949 of the automobile industry as well as numerous customer audits are prerequisites for Class A supplier status, which Sefar holds with many automobile manufacturers.





Sefar mesh label

The mesh label contains important information for product identification and processing:

- | | |
|--|---|
| 1 Product line and mesh number | 7 Gross roll length (Including compensation) according to Sefar product line defect regulation |
| 2 Mesh count and mesh count tolerance | 8 Piece number |
| 3 Mesh thickness and mesh thickness tolerance | 9 Date of fabrication |
| 4 Mesh width and mesh width tolerance | 10 Sefar identification code (SefID) |
| 5 Weave type | 11 Sefar copy protection |
| 6 Invoiced roll length | |







Sefar screen printing accessories

To complement our innovative screen printing mesh solutions, we use our extensive screen printing experience to develop a sophisticated range of accessories for practical daily use. Sefar's screen printing accessories program consists of stretching clamps, pneumatic control units and measuring devices providing highest performance and safety standards combined with ease of use. We have deliberately focused on devices that do support and optimize stencil making and printing processes helping our customers to achieve cost and quality improvements.

Integrated lifting function – ease of use, no worries





SEFAR® 3A – Stretching clamps

SEFAR® 3A / 150		Jaw width Stroke length Total length Height (Overall) Weight	150 mm 75 mm 465 mm 225 mm 7.2 kg	Product features <ul style="list-style-type: none"> Modular single or dual-circuit pneumatic system Progressive build-up of the jaw pressure Raising and lowering function of the jaws Jaws having widths of 150 and 250 mm Stroke length of 75 or 145 mm Max. screen tension of 45 N/cm Easy opening and closing of the clamping jaws Robust construction Customer benefits <ul style="list-style-type: none"> Rapid conversion to different frame formats and no restriction on frame sizes No slippage of the mesh from the clamps Precise and kind-to-the-mesh stretching process Simple and practical operation without excessive force Consistent reproduction of high tension values obtainable Pre-tensioning of the frame guarantees uniform tension values Suitable for synthetic and wire mesh Minimum maintenance necessary
SEFAR® 3A / 250		Jaw width Stroke length Total length Height (Overall) Weight	250 mm 75 mm 465 mm 225 mm 8.0 kg	
SEFAR® 3A L / 150		Jaw width Stroke length Total length Height (Overall) Weight	150 mm 145 mm 615 mm 225 mm 8.4 kg	
SEFAR® 3A L / 250		Jaw width Stroke length Total length Height (Overall) Weight	250 mm 145 mm 615 mm 225 mm 9.6 kg	

Economic solutions for all frame sizes

SEFAR® 2 – Stretching clamps

We provide with SEFAR® 2 a strong and economic stretching system. SEFAR® 2 makes its mark as a user-oriented, lightweight and rugged clamp for stretching synthetic mesh on all frame sizes.

SEFAR® 2 / 150		Jaw width Stroke length Total length Height (Overall) Weight	150 mm 70 mm 475 mm 175 mm 5.2 kg	SEFAR® 2 clamps has a surprisingly good price/performance ratio. With this light and sturdy clamps synthetic mesh can be stretched on all frame sizes. Product features <ul style="list-style-type: none"> Modular single or dual-circuit pneumatic system Progressive build-up of the jaw pressure Quickly adaptable to different frame sizes Clamping jaws having widths of 150 and 250 mm Stroke length of 70 or 140 mm Max. mesh tension of 40 N/cm Easy opening and closing of the clamping jaws Robust construction Customer benefits <ul style="list-style-type: none"> Economic Time saving adaption to different frame sizes No slippage of the mesh from the clamps Simple and practical operation No restriction on frame sizes Constant tension values obtainable Pre-tensioning of the frame guarantees uniform tension values Minimum maintenance
SEFAR® 2 / 250		Jaw width Stroke length Total length Height (Overall) Weight	250 mm 70 mm 475 mm 175 mm 5.7 kg	
SEFAR® 2 L / 150		Jaw width Stroke length Total length Height (Overall) Weight	150 mm 140 mm 615 mm 175 mm 6.3 kg	
SEFAR® 2 L / 250		Jaw width Stroke length Total length Height (Overall) Weight	250 mm 140 mm 615 mm 175 mm 7.2 kg	

Single and dual-circuit Sefar pneumatic systems

For pneumatic stretching systems there are two possibilities to allocate the air supply: Single or dual-circuit systems – complementary alternatives for optimal, balanced tension for all types of mesh and frame sizes. Single-circuit systems are recommended for frames having side lengths up to 150 cm. For frames having sides longer than 150 cm dual-circuit systems are recommended.

<p>SEFAR® 20 The basic control unit in combination with SEFAR® 2</p> 	<p>Specifications</p> <p>Dimensions 240 x 135 x 135 (mm) Weight 1.2 kg Air pressure 1 to 10 bar</p>	<p>Product features</p> <ul style="list-style-type: none"> ■ Dust and moisture filter ■ Dual circuit system (Requires two control units) <p>Customer benefits</p> <ul style="list-style-type: none"> ■ Economic
<p>SEFAR® 30 The simple control unit in combination with SEFAR® 3A</p> 	<p>Specifications</p> <p>Dimensions 280 x 135 x 185 (mm) Weight 1.8 kg Air pressure 1 to 10 bar</p>	<p>Product features</p> <ul style="list-style-type: none"> ■ Dust and moisture filter ■ Lift function ■ Dual circuit system (Requires two control units) <p>Customer benefits</p> <ul style="list-style-type: none"> ■ Economic ■ Secure stretching
<p>SEFAR® 31 Universal, ergonomic and compact control unit in combination with SEFAR® 3A</p> 	<p>Specifications</p> <p>Dimensions 350 x 180 x 330 (mm) Weight 6.7 kg Air pressure 1 to 10 bar</p>	<p>Product features</p> <ul style="list-style-type: none"> ■ Dust and moisture filter ■ Single or dual circuit in 2 stages ■ Lift function <p>Customer benefits</p> <ul style="list-style-type: none"> ■ Flexible adjustment ■ Easy handling ■ Secure stretching
<p>SEFAR® 51 The programmable single or dual circuit electronic control unit in combination with SEFAR® 3A</p> 	<p>Specifications</p> <p>Dimensions 530 x 520 x 300 (mm) Weight 12.4 kg Air pressure 1 to 9 bar</p>	<p>Product features</p> <ul style="list-style-type: none"> ■ Available as single or dual circuit system ■ Fully automatic tensioning process ■ Programmable for up to 50 different multilevel tensioning processes ■ Serial interface to SEFAR® Tensoscheck 100 <p>Customer benefits</p> <ul style="list-style-type: none"> ■ Tensioning to precise levels ■ Increased productivity and process reliability

Highest process safety

Sefar measurement devices

SEFAR® Tensocheck 100

Universal, ergonomic and compact



Specifications

Dimensions 80 x 95 x 115 (mm)
Weight 1.01 kg (With battery)
9V battery (6LR61)
Display range 4 – 60 N/cm

Resolution

Range <30 N/cm, ± 0.2 N/cm
Range >30 N/cm, ± 0.5 N/cm

Tolerance measurement range

10–19.8 N/cm, ± 0.4 N/cm
20–29.8 N/cm, ± 0.6 N/cm
30–39.5 N/cm, ± 1.0 N/cm
40–50.0 N/cm, ± 1.5 N/cm

Glass reference plate

In order to achieve reproducible results in the stretching process, a periodic review of the zero point of the device is recommended. By using the glass reference plate this monitoring can be carried out independently.

Product features

- The clear digital display having 10mm-high lettering is easy to read even from a distance
- High accuracy: Up 29.8 N/cm the resolution is 0.2 N/cm, over that, about 0.5 N/cm
- The highest process reliability and reproducible results

Customer benefits

- Because of the large display area, overall usability
- User-friendly operation
- Independent monitoring of the zero position using the glass control plate
- Measurement unit selectable by (N/cm or mm)
- Automatic shutdown increases battery life
- More accurate values obtainable via the interface to the SEFAR® 51 control unit
- Optional with interface to SEFAR® 51 control unit

SEFAR® Humicheck



Specifications

Dimensions 78 x 117 x 23 (mm)
Weight 150 g
Batteries 2 x 1.5 V LR6

Product features

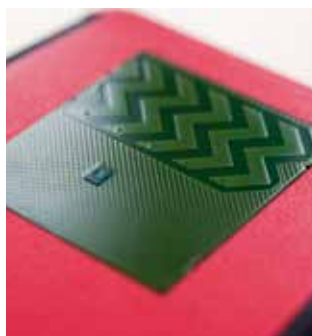
- LED indicator light – divided in three color sections (Strip light reading)
- Capacitive sensor on the rear panel
- Automatic shut-down after 2 minutes
- Battery alert

Customer benefits

- Increased process reliability, less downtime due to too-early stencil exposure
- Control is carried out without damage to the coated screen surface
- Easy to use



SEFAR® Humicheck – 3-color LED indicator light



SEFAR® Humicheck – Capacitive sensor on the back side

Eliminate bad stencil copies: With SEFAR® Humicheck you can check the residual moisture in coated screens. Due to its capacitive measurement system you will know in "real time" if excessive moisture remains in the emulsion and obtain the information on the dryness of the coating. SEFAR® Humicheck is suitable for all polyester and polyamide screen printing meshes in combination with all commercially available emulsions and capillary films. Not suitable for wire mesh.



Focusing on the customer

Sefar's business segment screen printing develops application and customer specific innovative solutions for the future. Our solutions in screen printing do not only consist of new products but aim for added value throughout the whole value chain of our customer. Process, customer requirements, applications, equipment and space are factors that have to be taken into account when looking for the best solution. We want to be a partner to our customers and support them on a local, regional or global bases, in achieving their goals.



Training and education

Sefar offers product and printing education. From general screen printing courses, intensive technical and product trainings to specialized, extensive at customer site education opportunities, we can help you meet your training needs. For more information or to schedule a training, please visit www.sefar.com or call our Sefar Screen Printing Competence and Training Center.

Product management

To understand what certain technologies can offer and their limitations is one of the major tasks for the product management group. It enables Sefar to continuously develop and choose the best product fit for purpose considering customer requirements. Product managers work in close cooperation with application engineering, R&D, production and QC to further improve existing products and guarantee a troublefree evolution of our product range.



Application engineering

Application engineers provide tailor made technical support to customers and help to initiate new product developments based on customer and market requirements; further activities include the adaptation and implementation of new technical solutions, coordination of specification and certification processes. Extensive stretching and printing tests for customer applications are the base for durable and safe solutions. Sefar's application engineers ensure on-site support as well as on-the-job training worldwide.

Innovation management

The driving forces in innovation management are multifaceted: On one hand global trends have a strong impact on our research work, such as the constant necessity to save ink consumption or the demand to accelerate printing efficiency. On the other hand, due to differing local industry specifications, considerable product adaptations to respective requirements are necessary. Sefar's innovation strategy includes centralized and decentralized components. The centrally organized research handles longterm development programs, delivers analytical services and establishes innovation management for the entire Sefar group. The second component in our innovation strategy is the regional adaptation of products, solutions and applications. Technical centers in America, Europe, China and Asia take on this challenge.



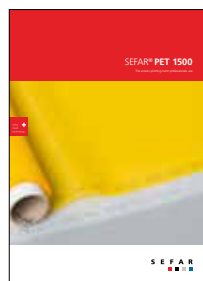
Sefar screen printing documents

Order your brochures by Sefar worldwide. For further information ask your Sefar sales representative.

Select your number by language: E = English, G = German, F = French, S = Spanish, I = Italian

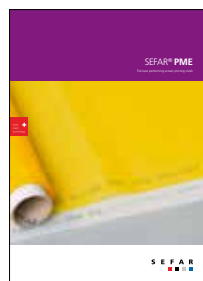
Products

SEFAR® PET 1500



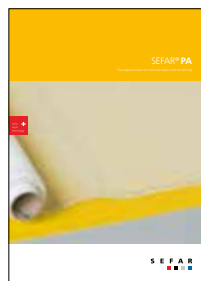
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F 3104-1612
S 3104-1613
P 3104-1614
I 3104-1615

SEFAR® PME



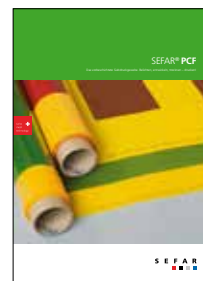
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I 3104-1685

SEFAR® PA



E 3104-1620
G 3104-1621
F 3104-1622
S 3104-1623
P 3104-1624
I 3104-1625

SEFAR® PCF



E 3104-1630
G 3104-1631
F 3104-1632
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I 3104-1635

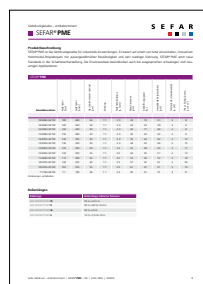
Article list

SEFAR® PET 1500



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G 3104-1811
F 3104-1812
S 3104-1813
P 3104-1814
I 3104-1815

SEFAR® PME



E 3104-1880
G 3104-1881
F 3104-1882
S 3104-1883
P 3104-1884
I 3104-1885

SEFAR® PA



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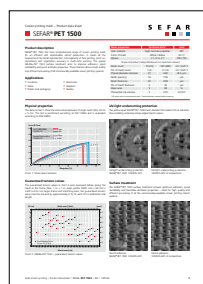
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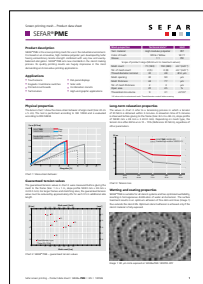
Product data sheet

SEFAR® PET 1500



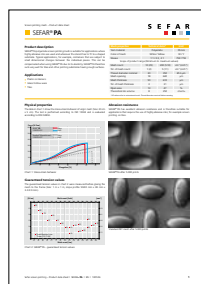
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SEFAR® PME



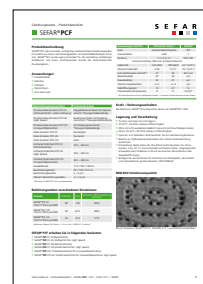
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SEFAR® PCF



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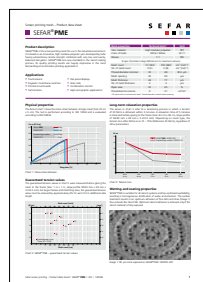
Defect regulations

SEFAR® PET 1500



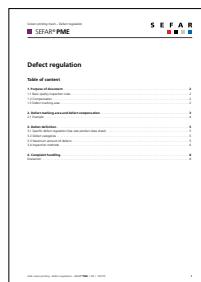
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SEFAR® PME



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SEFAR® PA



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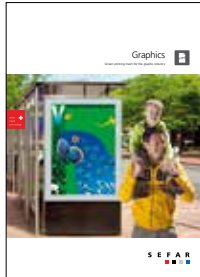
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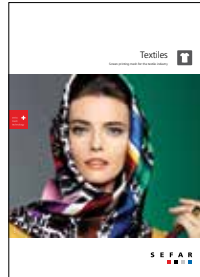
Applications

Graphics



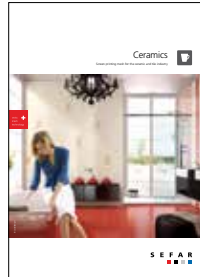
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Textiles



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Ceramics



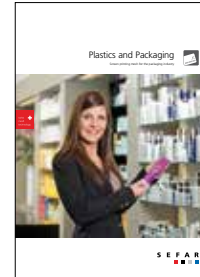
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Glass



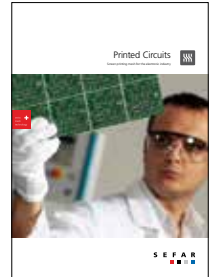
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Plastics and Packaging



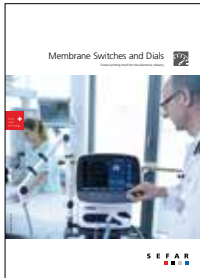
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Printed Circuits



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S 3104-1513
I 3104-1515

Membrane Switches and Dials



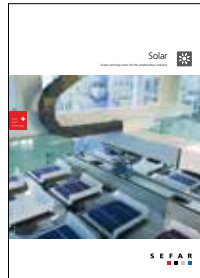
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S 3104-1503
I 3104-1505

Touchscreens and Displays



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F 3104-1522
S 3104-1523
I 3104-1525

Solar



E 3104-1570
G 3104-1571
F 3104-1572
S 3104-1573
I 3104-1575

Sefar Accessories



E 3104-1670
G 3104-1671
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S 3104-1673
I 3104-1675

Catalogue

Screen Printing Catalogue



E 3104-1450
G 3104-1451

Handbook

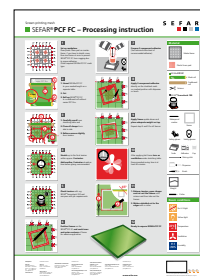
Handbook for Screen Printers



E 3104-0901
G 3104-0900

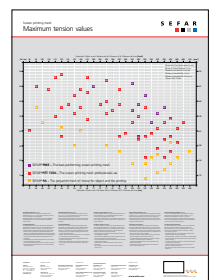
Poster

SEFAR® PCF FC Processing instruction



E 3104-4200

Maximum tension values



E / G / F / S / I
 3104-4201

Sefar AG – General Terms of Purchase

1. Scope of Application

- 1.1 These GTP set forth the conditions governing the purchase of products by Sefar AG. from the Supplier and deliveries made by the Supplier to Sefar AG.
- 1.2 Contrary or inconsistent terms and conditions of the Supplier shall not be deemed accepted by Sefar AG unless Sefar AG shall have agreed thereto in writing.
- 1.3 These GTP shall apply (and not the terms and conditions of the Supplier) even in cases where Sefar AG unreservedly accepts deliveries from the Supplier knowing that the Supplier has contrary or inconsistent terms and conditions.
- 1.4 The scope of delivery, specifications, objectives, delivery dates and the prices for deliveries pursuant hereto shall be set forth in separate orders. Upon Supplier's accepting an order a delivery agreement shall come into effect with respect to the items covered by such order. These GTP constitute an integral part of each order and delivery agreement.

2. Offer

- 2.1 By the tender invitation the Supplier acting as specialist is asked to submit an offer at no charge. The Supplier shall focus the offer on the specifications and objectives of Sefar AG and explicitly point out any deviations; the Supplier, therefore, acknowledges his duty to inform. If the Supplier does not limit the validity of his offer it will be considered to be binding for 90 days.

3. Order

- 3.1 To be effective, orders must be in writing. Acceptance of an order by the Supplier shall be deemed effective if it is in writing or if the Supplier does not object in writing to the order within 48 hours after the Supplier receives the order.
- 3.2 If the conclusion of a delivery agreement is made dependent on an order confirmation, Sefar AG shall only be bound if this confirmation of order does not deviate from the content of the order.
- 3.3 The scope of delivery includes, and the Supplier shall not be deemed to have satisfied its delivery obligations unless and until it delivers to Sefar AG, everything required for the proper installation, operation and functioning of the product, regardless of whether mentioned or described in the specifications set forth in or related to the order.

4. Prices and Terms of Delivery

- 4.1 The prices of the Supplier are considered to be fixed prices in the currency indicated on the order INCOTERMS 2010 are valid. Other terms of delivery shall be as set forth in the order or as otherwise set forth in writing by the parties.
- 4.2 The Supplier shall be liable for any damages arising during transport due to inadequate packing.
- 4.3 A delivery note with all order specific indications must be enclosed with each delivery.

Part and rest deliveries shall be designated as such on all shipping documents and invoices.

5. Terms of Payment

- 5.1 The order number, the exact trade mark/ goods' designation as well as the number of the drawing or the part must be indicated on all correspondence, confirmations, delivery notes, invoices etc.
- 5.2 A separate invoice shall be executed for each order as well as for each delivery.
- 5.3 Payment for each delivery shall be made by Sefar AG on the last business day of the month following the month in which delivery is made to Sefar AG. Other terms of payment shall be as set forth in the order or as otherwise agreed upon by the parties in writing.

6. Dates of Delivery and Late Delivery

- 6.1 The delivery is due at the destination on the date(s) stipulated in the order. If a fixed calendar delivery date has been agreed upon, late delivery puts Supplier automatically in default, unless the Supplier communicates his delivery difficulties in due time and the parties agree on a different solution.
- 6.2 Sefar AG is entitled to claim as compensation for damages resulting from delay for each whole or partial week by which the delivery date is exceeded a flat rate of one percent of the net sale price, up to a maximum amount of 5% of the delivery's net sales price. The requirement of prior notice, insofar as a delivery date is not determined by the calendar, remains unaffected by this provision.
If the Supplier is late with only part of the delivery, the penalty for default shall be calculated on the price of the Supplier's total performance that is affected by the late partial delivery. The foregoing provisions of this paragraph are in addition to and not exclusive of any other remedy that may be available to Sefar AG in the event the Supplier fails to deliver an item in accordance with the terms of a delivery agreement. Nothing herein shall be deemed to limit any such other remedy that may be available to Sefar AG, nor shall Sefar AG's enforcement of any other rights it may have be deemed or construed to affect or waive any of its rights hereunder. The Supplier's payment of damages required by this paragraph 6.2 does not release the Supplier from its duty to fulfill the delivery according to the agreement.
- 6.3 The Supplier may plead omission of essential services to be performed by Sefar AG only if he has requested these on time.
- 6.4 Partial or early deliveries are admissible only if they have been agreed upon.
- 6.5 If the Supplier is in default with his delivery and if in transactions without a fixed calendar delivery date the Supplier remains in default with his delivery after a given reasonable grace period, Sefar AG shall thereafter be entitled to refuse acceptance of the delivery, to terminate the related delivery agreement and/ or to seek damages for non-fulfillment of the

delivery obligation. The amount of any penalty for default according to paragraph 6.2 above shall be credited against any damages to which Sefar AG may be entitled under this paragraph

- 6.6 If it becomes evident already prior to the delivery date that the Supplier will not be able to meet the agreed delivery date, Sefar AG may terminate the delivery agreement and waive delivery.
- 6.7 The delivery agreement may also be terminated if in the course of manufacture it becomes evident that the object to be delivered will not be suitable for the purpose intended.

7. Warranty, Liability

- 7.1 The Supplier expressly warrants the guaranteed product features and the specifications specified in the delivery agreements as well as that the products it delivers are free of defects which will reduce their value or fitness for normal use as well as their useful life under known conditions of use. In addition to the warranty of product features in the delivery agreements and the terms thereof notwithstanding, the Supplier warrants that each product delivered pursuant to the delivery agreements has been tested and controlled and meets all industry standards and all legal requirements under existing laws, regulations and directives relating to design, safety, fire and environmental protection and has been designed in a manner not to endanger life and health if the product is used as directed.
- 7.2 At its expense the Supplier shall add all required EU-conformity ("CE-symbol") or EU manufacturer declaration to each delivery.
- 7.2.1 The supplier is responsible for ensuring that he only uses such production materials, semi-finished products and adjuvants, which are in accordance with the agreed quality requirements.
For this purpose, he sets up an appropriate supplier management. The supplier is also responsible for complying with the legal requirements and safety regulations for restricted, toxic and hazardous substances, as well as the requirement for the environment, electricity etc. of the purchased products in their respective country and sales, including directive 94/62/EC, REACH and RoHS.
- 7.3 With the scope of the Supplier's liabilities according to 7.1 as well as the quality assurance agreement Sefar AG is not obliged to inspect any product for defects or notify Supplier of defects in order to maintain Sefar AG's warranty claims, except for warranty claims in respect of obvious defects.
- 7.4 Contrary to the legal prescriptions the warranty in respect of each product delivered by the Supplier to Sefar AG shall survive for a period of 12 months from the date the product is delivered to Sefar AG. The Supplier at its expense and free of charge to Sefar AG, shall promptly, upon request by Sefar AG, repair all defects (which shall also include the not achieved guaranteed data and the absence of

any guaranteed product feature) of which Sefar AG gives the Supplier notice during the warranty period. In addition, Sefar AG shall be entitled to all legally guaranteed warranty claims. Notwithstanding the foregoing, Sefar AG may, at its election and as an alternative to the Supplier's repairing a defective item, require the Supplier to replace the defective item with a non-defective item. In the exercise of this right of discretion, Sefar AG shall consider in good faith whether the Supplier is capable of making repairs due to the nature of its business operation. In either case, the Supplier shall bear all expenses arising from the repair or replacement of the defective item.

- 7.5 Sefar AG shall be entitled to cancel a sale or to get a sales price reduction on account of a material defect only if the Supplier fails to replace or repair a defective item by such reasonable deadline as may be set by Sefar AG in its discretion or if the Supplier declines to replace or repair a defective item.
- 7.6 Sefar AG shall be entitled to have a defective item repaired by a third party and to charge the costs thereof to the Supplier without giving the Supplier an opportunity to repair the defective item if, due to special urgency or other valid business reasons, Sefar AG reasonably believes the Supplier is incapable of repairing the item to Sefar AG's requirements. In this case, Sefar AG shall immediately notify the Supplier of the defect upon Sefar AG's discovery thereof.
- 7.7 The Supplier ensures, that the product will not show any defects which will take effect on serviceability, reliability as well as durability/product life known under application conditions.
- 7.8 The Supplier shall be liable for all damages, including consequential damages, caused by the breach of any warranty applicable to a product delivered to Sefar AG pursuant hereto.
- 7.9 The Supplier shall indemnify and hold Sefar AG harmless against any loss or claim, including the cost of defending against any such claim, against Sefar AG arising from any act or omission of the Supplier or any breach of warranty by the Supplier that causes or is alleged to have caused personal injury or damages to the property of any third party.
- 7.10 The Supplier is liable for his subcontractors to the same degree as for his own performance.
- 7.11 For replacement deliveries and repairs the Supplier grants a warranty of 18 months.

8. Product Liability, Indemnification, Insurance Coverage

- 8.1 The Supplier shall indemnify and hold Sefar AG harmless against any third party claim for damages against Sefar AG insofar as a product delivered by the Supplier to Sefar AG was the cause of the damage or the cause of the damage was within the Supplier's control.
- 8.2 The Supplier shall also reimburse Sefar AG for all expenses arising in connection with any recall measure taken by Sefar AG to repair or

replace any defective product if either the defect was caused by a defective item delivered by the Supplier to Sefar AG or prevention of the defect was otherwise within the Supplier's control. To the extent it may reasonably be expected to do so, Sefar AG will notify the Supplier of recall measures to be taken.

9. Service and Repairs

- 9.1 The Supplier shall provide a repair and maintenance service staffed by qualified technical experts for each product delivered to Sefar AG for a period of at least 10 years after delivery of the product to Sefar AG.
- 9.2 The Supplier warrants the availability of original spare parts for each product delivered to Sefar AG under any delivery agreement for a period of at least 10 years after delivery of the product to Sefar AG.
- 9.3 All repair and maintenance work shall be performed by the Supplier to industry standards.

10. Inspection Right

- 10.1 Sefar AG has the right to inspect the work in progress; however, this does in no way change or diminishes the Supplier's obligation to fulfill his contractual obligations.

11. Assembly and Installation

- 11.1 If the Supplier also undertakes the assembly and installation, these works shall be included in the delivery price unless separate payment has been agreed upon.

12. Technical Documents and Operating Manuals

- 12.1 Before work on the product is started the Supplier shall submit to Sefar AG, on request, a set of engineering drawings for approval. Approval by Sefar AG does not relieve the Supplier from ensuring that the product can be built and that it will function according to specifications. Furthermore, with the delivery of the product Sefar AG shall be provided with the final engineering drawings, maintenance instructions and operating manuals as well as the spare parts list for proper maintenance in electronic form (PDF file) in English and German free of charge.

13. Secrecy and Product-related Exclusivity Agreement

- 13.1 The Supplier shall not use for any purpose not authorized by the delivery agreements concluded hereunder or disclose to any third party any trade or manufacturing secret or customer data of Sefar AG. In particular, the Supplier shall not use any manufacturing know-how made available to the Supplier by Sefar AG in any form to manufacture or have manufactured for other customers products similar to or comparable with any product subject to a delivery agreement entered into hereunder. The Supplier shall cause each of its employees and subcontractors to agree by appropriate contractual measures to be bound by the foregoing provisions.

- 13.2 Paragraph 14.1 shall survive the termination of the delivery agreement concluded hereunder. Paragraph 14.1 shall not apply to manufacturing know-how of Sefar AG that is embodied in figures, drawings, calculations or other documents that are publicly disclosed by Sefar AG.

14. Third Parties' Intellectual Property Rights

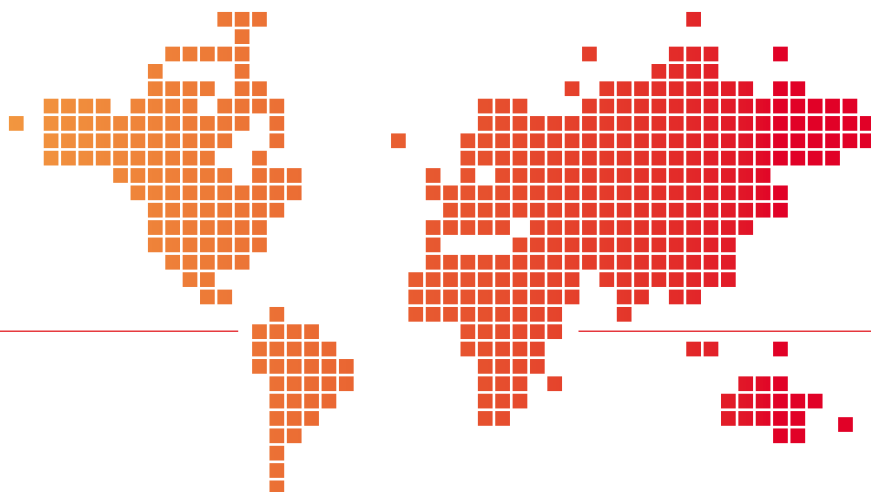
- 14.1 The Supplier represents and warrants to Sefar AG that the delivery to, and use by, Sefar AG of the Supplier's products in accordance with the terms of these GTP and any delivery agreement concluded hereunder will not infringe any patent, trademark, trade secret or other intellectual property rights of any third party. In case any such third party claim of infringement is made against Sefar AG, the Supplier shall indemnify and hold Sefar AG harmless against such claim.

15. Applicable Law, Place of Performance

- 15.1 These GTP and the individual delivery agreements concluded hereunder shall be construed in accordance with, and governed by the laws of Switzerland, without regard to any applicable principles of conflicts of laws. The regulations of Swiss law shall be of subsidiary application to the express provisions of these GTP and the delivery agreements concluded hereunder.
- 15.2 Unless otherwise provided for in writing, place of performance shall be the site of Sefar AG in Switzerland.

16. Miscellaneous

- 16.1 All modifications and supplements to these GTP (including, without limitation, this paragraph 16.1), all delivery agreements concluded hereunder and all modifications and supplements to such delivery agreements shall only be effective if embodied in a written instrument signed by each of the parties hereto.
- 16.2 Neither party may assign or transfer any of its rights and duties under these GTP or any delivery agreement concluded hereunder without the prior written consent of the other party.
- 16.3 In the event any term or provision of these GTP shall for any reason be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof. Such illegal, invalid or unenforceable provision shall be replaced by another valid, legal and enforceable provision in form and substance suitable to ensure the overall business intent of the parties hereto.
- 16.4 Criteria of origin according to Free Trade Agreement of Switzerland – EU.



Sefar worldwide

Sefar is the leading manufacturer of precision fabrics from monofilaments for the screen printing and filtration market. Sefar products are used in a wide variety of industries, reaching from electronics, graphics, medical, automotive, food and pharmaceutical applications to aerospace, mining & refining and architecture. With its profound understanding of the applications Sefar helps its customers to achieve optimum results in their industrial processes. Subsidiaries and fabrications centers around the world provide local technical service for the broad range of solutions offered by Sefar.

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Your Sefar trading partner:



Our most current general sales conditions shall apply.
Please consult the most current local product data sheet prior to any use.

