

As of: February 2023

GENERAL INFORMATION		
Product group	GRP LINER supply	
Product range	SAERTEX-LINER® H ₂ O	
Design	Type S+	
Utilization	Potable water	
Approvals	DVGW-W270, KTW, NSF/ANSI Standard 61 and others*	
Reinforcing material	multiaxial fabric made of glass fiber	
Resin type	styrene-free vinyl ester resin (SFVE)	
Impregnation	pre-impregnated at the factory	
Curing procedure	light-cured pipe lining (UV-CIPP)	
Installation procedure	pull in place	
Inflation procedure	compressed air	
Shelf life	6 months: - WD ≤ 8 mm - 7 °C – 18 °C	3 months: - WD > 8 mm - 7 °C – 14 °C
Pressure table	available	
EC Safety Data Sheet	available	

* Brazil, China, Israel, Poland, Slovakia, Spain, Czech Republic etc.

DESIGN CHARACTERISTICS	
maximum operating pressure (MDP)	1 bar
Host pipe profile	circular
Diameter range	DN 250 - 1200
structural wall thickness	4 mm - 12 mm, in 1 mm increments
inner foils with barrier function**	Hygienic
outer foils**	integrated sliding and light protection foil and permanent foil with barrier function
structural classification according to DIN EN ISO 11295/ AWWA M28	Class A/Class IV: independent - fully statically loadable
Liner construction as outlined in:	Analog DIBt approval Z-42.3-350, Annex 1 and 2, abZ/AB

** Details see section "FOILS"

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FOILS	
inner foils with barrier function	Hygienic
- Remains in the liner	Permanent
- Materials	PE/PA, fleece PET
- Thickness	up to 400 µm
protective outer gliding foil, UV light protection***, integrated	
- Material	PVC, fabric reinforced in places
- Thickness	up to 500 µm
permanent outer foil with barrier function	
- Material	PE/PA/PE and fleece PP
- Thickness	up to 200 µm

***Up to DN 600 and max. 2.5 t liner weight and corresponding condition of host pipe installation possible without additional gliding foil.

Notes (terms ISO 11296- 4):

- temporary: Foil is removed after curing.
- semi-permanent: Facilitates liner installation and curing without post-installation functions. Remains in the liner.
- permanent: Facilitates liner installation and curing with post-installation functions. Remains in the liner.

MECHANICAL CHARACTERISTICS	
Short-term circumferential E modulus according to DIN EN 1228 // DIN EN ISO 11296-4:2011	≥ 12.950 N/mm ²
Short-term bending E modulus according to DIN EN ISO 11296-4:2011 // DIN EN ISO 178	≥ 15.000 N/mm ²
Short-term bending stress according to DIN EN ISO 11296-4:2011 // DIN EN ISO 178	≥ 230 N/mm ²
Long-term circumferential E modulus**** ex 50 years according to DIN EN 761	9.300 N/mm ²
Long-term bending stress E modulus**** ex 50 years according to DIN EN 761	165 N/mm ²
Retention factor A after 10.000 hours* according to DIN EN 761	1.39
Creep tendency after 24 hours according to DIN EN ISO 899-2	≤ 6 %

**** These values are used for the static calculation of the liner's stability according to DWA-A 143-2.

Product data sheet
SAERTEX-LINER® H₂O, TYPE S+



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COMPOSITE	
Glass fiber type according to DIN 61850	permanently corrosion and chemical resistant, ECR
Number of layers multiaxial fabric	at least 2
Glass area weight per mm wall thickness	1100 g/m ² ± 150 g/m ²
specific density according to DIN EN ISO 1183-2	1.6 g/cm ³ ± 0.5 g/cm ³
Glass content according to DIN EN ISO 1172	≥ 49% (mass-based)
Barcol hardness according to DIN EN 59	≥ 40 IRHD
longitudinal seam	Yes
Winding	No