



Omega-Liner™
Product Information

2021

Omega-Liner™ Technical Data

Company Information

Certification Owner	Omega UV Liner Company
Location	Canton, South Dakota

Product Information

Product name	Omega Liner
Use of the product since	2017
Inflate procedure	Compressed air
Curing method	UV or LED Light
Installation technique	Pull-in Place
Impregnation Location	At manufacturers site
North American Product Classification System Code (NAPCS)	464
MSDS Sheet	Available
WRC Classification	PT/299/0610-AS
Resin System(s)	Unsaturated Polyester Vinyl Ester
Dimension range	6" (150mm) to 63" (1575mm)
Wall thickness in cured condition	3.6 mm – 15.4 mm, in 1.2 mm increments
Number of layers	Varies according to thickness, 3-13
Longitudinal seam	Yes

Liner Physical Properties

Chemical resistance	According to ASTM D 543	
Barcol hardness according to ASTM 2583	≥ 40	
Recovery period	Up to 100 years	
Maximum residual styrene content after curing	≤ 3 %	
Square weight per mm wall thickness	28.01 oz/yd ² + 4.42oz/yd ² / - 2.94oz/yd ²	
Short-term Flexural Modulus	Sanitary	1,600,000 psi
In accordance with ASTM D 790	Surface	2,200,000 psi
Long-term Flexural Modulus	Sanitary	50y = 1,088,000psi / 70y = 1,051,200psi / 100y = 1,040,000psi
In accordance with ASTM D 790	Surface	50y = 1,460,800psi / 70y = 1,445,400psi / 100y = 1,430,000psi
Short-term flexural strength in relation to ASTM D 790	30,000 psi	
Poisson's ratio according ASTM E132	Axial = 0.279 Radial = 0.171	
Reduction factor after 10.000 h Per ASTM D2990 and DIN EN 761	50y = 66.4% / 70y = 65.7% / 100y = 65.0%	
Creep behavior after 24 h according per ASTM D2990	< 10 %	

Material Information

Inner Foil

Material	PE / PA
Thickness of foil	Up to 0.20 mm

Outer Fleece

Material	PP / PP
Thickness of foil	Up to .22 mm

Outer Protective Foils

Material	PE / PA / PE
Thickness of foil	Up to 0.35 mm

Reinforcement

Reinforcement material	Glass fiber stitch bonded fabric, non-woven
Textile glass type	West Dominant ECR Glass which is permanently resistant to chemical agents or corrosion
Specific density	2.62 g/cm ³
Allowed stretching in radial direction	4.6 %
Stretching in axial direction	0 %
Maximum Pull-In Force (<24"/>24")	20,000lb/50,000lb

Gliding Foil

Material	HDPE
Thickness of foil	Up to 2.0 mm

Resin System Data

UP resin group according to DIN 18820-1	3
UP resin type according to DIN 16946-2	1140
VE resin type according to DIN 16946-2	1310
UP resin based on	Isophthalic acid / Neopentyl glycol
Curing agents	UV-curing: UV-initiators
Reaction shrinkage of the pure resin	8 %
Content of styrene before curing	Approx. 39-42 %
Barcol Hardness in accordance with ASTM D2583	48
Tensile Elongation in accordance with ASTM D 638	3.1%

Resin Physical Data

Viscosity @ 77°F/25°C, RVF Brookfield Spindle #2 @20rpm	800 cps
Peak Exotherm	180 – 215 °F
Flash Point	84 °F