

Technical Data Sheet

Durolight[®] S1

Typical characteristics

- Glass-reinforced thermoset SMC high-pressure laminate developed for applications at cryogenic temperatures
- Low thermal conductivity and low weight

Typical industries

- LNG engines - Cryogenic Insulation
- Pipelines
- Subsea
- Healthcare

	Test method	Unit	Guideline value
Mechanical properties			
Density	ISO 1183	g / cm ³	1,3
Flexural strength [⊥]	ISO 178	MPa	130
Modulus of elasticity in flexion [⊥]	ISO 178	MPa	8000
Compressive strength ^{1) ⊥}	ISO 604	MPa	250
Tensile strength II	ISO 527	MPa	60
Thermal properties			
Coefficient of linear expansion II	TMA (Mettler)	10 ⁻⁶ x K ⁻¹	15 - 20
Thermal conductivity [⊥] RT		W / (m * K)	≈ 0,22
Thermal conductivity [⊥] -196		W / (m * K)	≈ 0,18 ²⁾
Physical properties			
Water absorption (method I)	ISO 62	%	< 0,2

= perpendicular to the lamination || = parallel to the lamination

¹⁾ Sample size: 20 x 20 x 20 mm

²⁾ Extrapolated value

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Röchling Industrial SE & Co. KG

Röchlingstr. 1 • 49733 Haren (Ems)/Germany (DE) • Tel. +49 5934 701-0
info@roechling-plastics.com • www.roechling.com/industrial/haren

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