Technical Data Sheet

Durolight® S1

Typical characteristics

- Glass-reinforced thermoset SMC high-pressure laminate developed for applications at cryogenic temperatures
- Low thermal conductivity
- 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 1)	ISO 62	%	< 0,2

⊥ = perpendicular to the lamination II = parallel to the lamination

[1] Sample size: 20 x 20 x 20 mm
[2] Extrapolated value

The data stated above are average values verified on the basis of regular statistical tests and controls. All information in this publication is based on current technical knowledge and experience. Due to the large number of possible influences during processing and application, it does not exempt the user/processor from carrying out their own tests and trials. Responsibility for the evaluation of the end product for the intended use and compliance with the applicable relevant legal requirements lies exclusively with the user/processor as well as the distributor of the respective product/end product. Suggested uses do not constitute an assurance of suitability for the recommended purpose. The information in this publication and our declarations in Connection with this publication do not constitute acceptance of a guaranteed or warranted characteristic. Guarantee declarations require our separate express written declaration in order to be effective. We reserve the right to adapt the product to technical progress and new developments. The products described in this publication are only sold to customers with the appropriate expertise and not to consumers. Please do not hesitate to contact us if you have any questions or if you experience any specific application problems. If the application for which our products are used is subject to an official approval requirement, the user/processor is responsible for obtaining these approvals. Our application recommendations do not exempt the user/processor from the obligation to examine and, if necessary, clarify the possibility of infringements of third-party rights. In all other respects, we refer to our General Terms and Conditions (GTC). These are available at: www.roechling-industrial.com/gtc

ri-inquiry@roechling.com • www.roechling.com/industrial/materials

Print: 22/11/2026 • Release: 20/09/2023
PIM-ID: 716653 • PIM-Code: 1065-43-9.12.14-3.5.7.27-13
Company-IDs: 20000-1

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