

## **Technical Data Sheet**

## **Durolight<sup>®</sup> S1**

GFK-UP

## **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 <sup>3</sup>	1,3
Flexural strength <sup>1</sup>	ISO 178	MPa	130
Modulus of elasticity in flexion <sup>1</sup>	ISO 178	MPa	8000
Compressive strength $^{1)}$ $^{\perp}$	ISO 604	MPa	250
Tensile strength II	ISO 527	MPa	60
Thermal properties			
Coefficient of linear expansion II	TMA (Mettler)	10 <sup>-6</sup> x K <sup>-1</sup>	15 - 20
Thermal conductivity <sup>⊥</sup> RT		W / (m * K)	≈ 0,22
Thermal conductivity <sup>1</sup> -196		W / (m * K)	≈ 0,18 <sup>2)</sup>
Physical properties			
Water absorption (method 1)	ISO 62	%	< 0,2

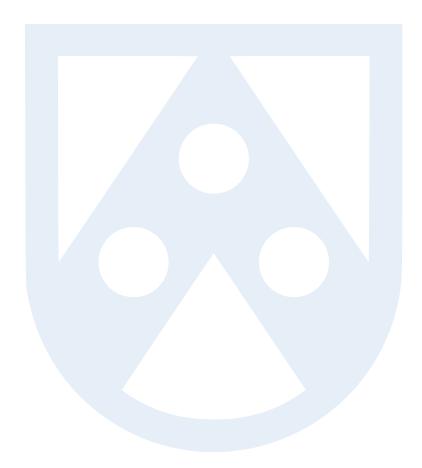
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= perpendicular to the lamination II = parallel to the lamination

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 $<sup>^{1)}</sup>$  Sample size: 20 x 20 x 20 mm

<sup>2)</sup> Extrapolated value