

## **Technical Data Sheet**

## Durolight<sup>®</sup> S3

GFK-EP

#### **Typical characteristics**

- Low thermal conductivity
- High mechanical strength
- Glass-reinforced thermoset SMC
  high-pressure laminate
  developed for applications at
  cryogenic temperatures

#### **Typical industries**

- LNG 发动机 低温隔热件
- 管路
- 水下
- Healthcare

	Test method	Unit	Guideline value
Mechanical properties			
Density	ISO 1183	g / cm <sup>3</sup>	1,85
Flexural strength <sup>⊥</sup> RT	ISO 178	MPa	350
Flexural strength <sup>⊥</sup> -196°C	ISO 178	MPa	500
Modulus of elasticity in flexion $^{\perp}$ RT	ISO 178	MPa	17000
Modulus of elasticity in flexion <sup>⊥</sup> -196°C	ISO 178	MPa	20000
Compressive strength <sup>⊥</sup> RT	ISO 604	MPa	450
Compressive strength II RT	ISO 604	MPa	300
Compressive strength II -196°C	ISO 604	MPa	350
Compressive strength $^{\perp}$ -196°C	ISO 604	MPa	550
Tensile strength II RT	ISO 527	MPa	280
Tensile strength II -196°C	ISO 527	MPa	360
Impact strength II (Charpy)	ISO 179	kJ / m <sup>2</sup>	90
Thermal properties			
Thermal conductivity <sup>⊥</sup>		W / (m * K)	≈ 0,3
Coefficient of linear expansion $^\perp$	TMA (Mettler)	10 <sup>-6</sup> x K <sup>-1</sup>	≈ 65
Coefficient of linear expansion II	TMA (Mettler)	10 <sup>-6</sup> x K <sup>-1</sup>	≈ 13
Operating temperature		°C	-196 to +180
Physical properties			
Water absorption (method 1)	ISO 62	%	< 0,1

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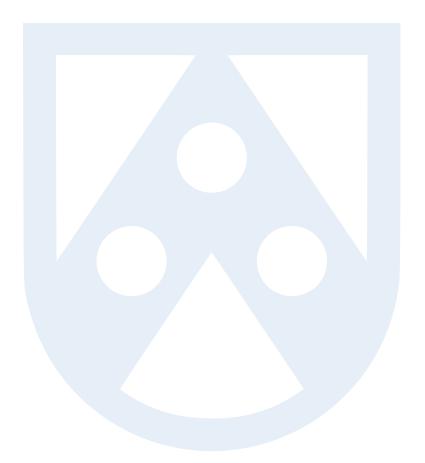


# Röchling

### Industrial

 $\perp$  = perpendicular to the lamination II = parallel to the lamination

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