

# The Fit and Forget Rudder Bearing Solution

## L2 Marine

L2 Marine material exclusively available from ACM Composites is the result of an extensive rudder bearing R&D programme and was initially launched into the marine market in 2001. It has since been installed and successfully operated on over 2,000 vessels, both new and repair, on various shaft sizes up to 1.25 metres diameter.

The material was developed to give improved performance, longer life, a very competitive price and to have the capability of operating under non-lubricated conditions, offering a maintenance free...

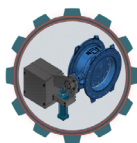
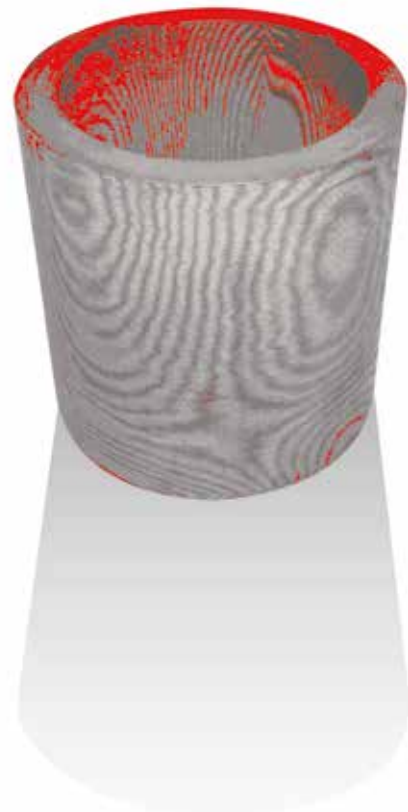
### 'Fit and Forget Bearing Solution'

Due to its excellent bearing characteristics L2 Marine is the only single synthetic composite material available that has classification approval for both lubricated and dry operation, making it the ideal rudder bearing material.

Other applications include; deck machinery equipment, offshore mooring systems, steering gear, stern roller bearings, water tight door bearings and many more.

### Advantages in using L2 Marine for rudder applications

- ▲ High load capability
- ▲ Approved for wet and dry operation
- ▲ Very low stick - slip
- ▲ Short delivery time (repair 48 hours)
- ▲ Good elasticity
- ▲ Dry, oil, grease, water operation
- ▲ Can be freeze fitted
- ▲ Classification approval (10 MPa)
- ▲ Very low swell
- ▲ Low wear characteristics - long life
- ▲ Maintenance free
- ▲ Good dimensional stability
- ▲ Competitive price
- ▲ Environmentally friendly



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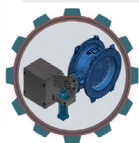
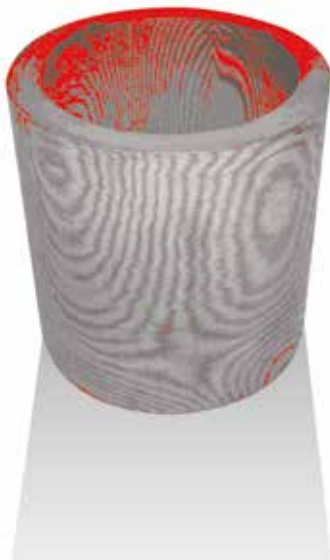
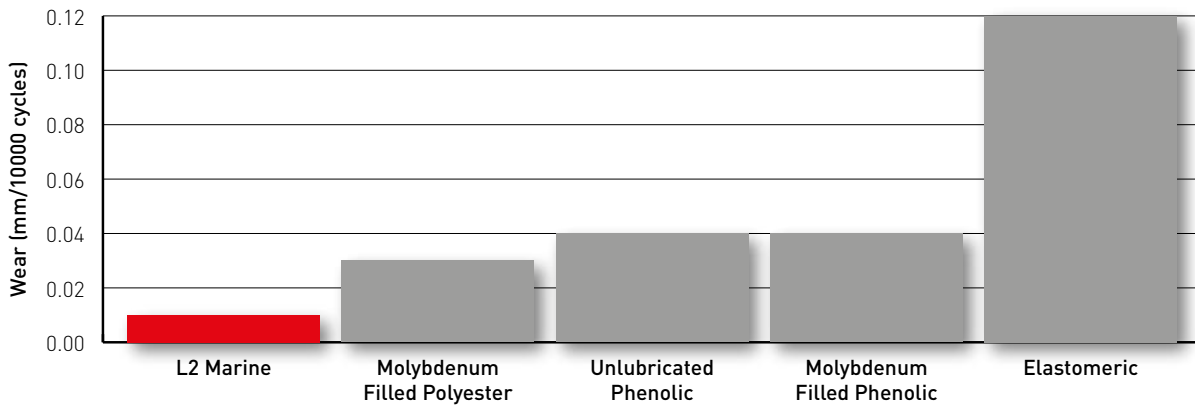
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# Material/Design Specification

Property	Unit	L2 Marine
Compressive strength (normal)	MPa	375
Compressive modulus (normal)	MPa	2,750
Impact strength (normal)	kJ/m <sup>2</sup>	100
Density	g/cm <sup>3</sup>	1.30
Hardness	Rockwell M	100
Coefficient of friction (dry)	-	0.13 – 0.15
Maximum operating temperature	°C	130
Minimum operating temperature	°C	-40
Thermal expansion coefficient (parallel)	/ °C	5 x 10 <sup>-5</sup>
Thermal expansion coefficient (normal)	/ °C	10 x 10 <sup>-5</sup>
Swell in water	%	< 0.15

(nominal values)

**Dry Operation Wear Characteristics**



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