

# Water Lubricated Propeller Shaft Bearings

## L2 Marine

L2 Marine material exclusively available from ACM Composites has been specifically developed for the requirements of water lubricated propeller stern shaft bearing applications in river boats and work boats; offering a maintenance free...

### 'Fit and Forget Bearing Solution'

L2 Marine has been tested for stern tube bearing applications and has been proven to offer superior performance in terms of wear, extended life and low shaft wear over other water lubricated propeller shaft bearing materials.

The material is available as finish machined bearings or in billet form for final machining in the ship yard.



The excellent bearing performance of L2 Marine coupled with its superior physical characteristics offers shipyards and ship owners operating in harsh conditions many advantages.

### Advantages in using L2 Marine for propeller shafts

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

**acm** COMPOSITES

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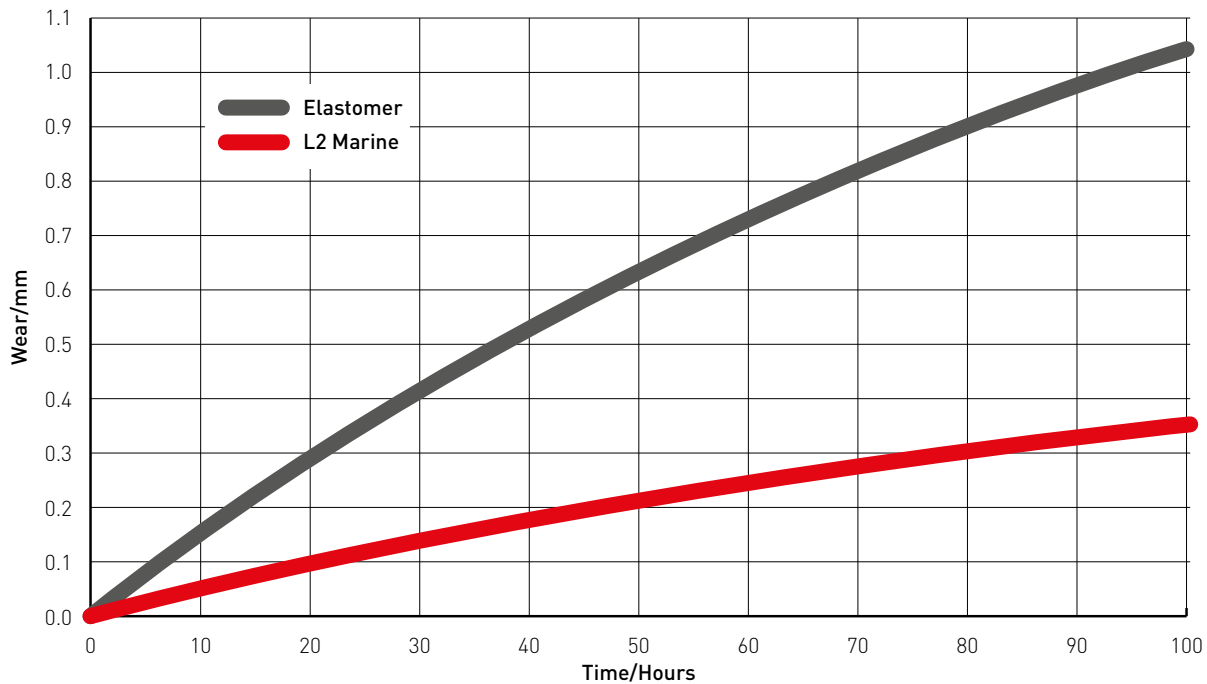
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# Material/Design Specification

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)

## Wear Comparison In Grittied Seawater



[Test parameters: Bearing pressure 0.48 MPa, stainless steel (EN ISO 316) shaft diameter 50 mm, shaft speed 55 rpm, water flow rate 7.5 l min<sup>-1</sup>, silica particles of size specified by MoD]

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