



ACM Bearings Ltd in conjunction with naval design and mechanical engineering, have devised and completed an agreed comprehensive test programme on our **LNF** material. The results of the tests proved conclusively that **LNF** has superior bearing characteristics when compared to similar nylon and elastomeric type materials currently in use.

LNF is now specified and has been supplied for both new build and spares into many navies worldwide for water lubricated bracket and stern tube bearings in surface vessels and submarines.

LNF is a highly engineered composite material comprising of a non-woven fabric in an especially formulated anti-scuffing thermosetting resin which contains solid lubricants allowing the material to operate under dry, grease, oil and water lubricated conditions.

LNF can be supplied fully machined for new build or spares, replacing rubber/cotton stave bearings, and elastomeric or nylon type shell bearings.

One of the major advantages of **LNF** is that it can be supplied in tube form up to 1600 mm diameter x 1200 mm long. This allows for the design of a complete bearing length system as opposed to two half length bearings (currently supplied) resulting in improved performance, ease of assembly, reduced initial costs (only one retention key required) and reduced bearing replacement maintenance costs

Benefits of **LNF** Material

- Competitive price
- High strength characteristics
- Classification Society approved
- Low "stick-slip"
- Runs hydro dynamically at low rpm's
- Low shaft wear
- Short delivery time and stock available
- Low friction and wear characteristics
- Excellent dimensional stability
- Low/nil noise signature
- Low swell
- Low creep resistance

Property	Value	Property	Value
Compressive Strength (flatwise)	180 N/mm ²	Hardness (Rockwell M)	90
Max Working Compressive Strength	50 N/mm ²	Coefficient of Friction (dry)	0.13 – 0.18
Compressive Modulus	4000 N/mm ²	Maximum Operating Temperature	> 100 °C
Impact Strength (flatwise)	35 kJ/m ²	Thermal Expansion Coefficient	5 x 10 ⁻⁵ /°C
Density	1.3 – 1.4 g/cc	Swell in Water (ambient)	1.0%

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