



FRANKLIN

Composites for Today's Challenges

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Lamitex® DN

DN is a strong synthetic fabric/phenolic composite formulated for applications that require exceptional dimensional stability, low moisture absorption properties and very low-friction characteristics. It has high wear resistance properties in aggressive and dust filled environments and can be lubricated with water, oil or grease. Example uses are: Bearing Bushings, Rudder Bearings and Guide Rings for hydraulic cylinders.

<u>Mechanical Properties</u>		<u>Test Method</u>	<u>Test Specimen Thickness</u>	<u>Values</u>	
Flexural Strength		ISO 178	ID >100 mm	85 MPa / 12,325 psi	*1
Compressive Strength		ISO 604		140 MPa / 20,300 psi	*1
Cohesion between layers			ID >100 mm	180 MPa / 26,100 psi	*1
 <u>Electrical Properties</u>					
Electric Strength in oil @ 90°C:					
Parallel to Laminations	IEC 243-1	3.0 mm wall thickness	3 kV/mm		*2
Perpendicular to Laminations	IEC 243-1	3.0 mm wall thickness	40 kV/25 mm		*2
Permittivity: 50 Hz	IEC 250		4.0		*3
Dissipation Factor: 50 Hz	IEC 250		0.040		*3
Insulation resistance after immersion in water	IEC 167	ID >8 mm & or OD >10mm	5,000 MΩ		*4
 <u>Physical and Thermal Properties</u>					
Thermal endurance index @ 20,000 hrs	IEC 216	≥3.0 mm	130°C		
Density	IEC 1183-A	All	1.15 g/cm ³		*1
Water Absorption	IEC 62-1	50x50x3 mm	1.0 mg/cm ²		*1

IEC 212 Conditioning: 1: 24h @ 23°C & 50%RH
2: 24h @ 23°C & 50%RH + 1hr in oil at 90°C
3: 96h @ 105°C + 1hr @ 23°C & 20%RH
4: 24h @ 50°C + 24hr in water at 23°C

All information and suggestions pertaining to the properties and uses of the materials described herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material for such use is the sole responsibility of the user. No warranty is expressed or implied, including, without limitation, warrant of merchantability or fitness for a particular purpose. Under no circumstances shall Franklin Fibre - Lamitex Corp be liable for incidental or consequential loss or damage.

Composite Tubes • Bearings • Molded Shapes • Rotary Vanes • Fabricated Parts • Vulcanized Fibre • High Temp Insulation

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