



THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

Item:	Ranprex® Beech Veneer/Phenolic Resin Laminate Transformer Wood			
Description:	Ranprex® is a high strength thermoset laminate, consisting of phenolic resin and beech wood veneers. It is manufactured according to IEC 61061 standards.			
Standards:	IEC 61061 Grades P1R, C2R			
Availability:			English Units (in)	SI Units (mm)
	Laminate Sheets:	Sheet Size:	48 x 98 (standard)	1220 x 2500 (standard)
		Thickness:	0.39" - 4.72" (-0/+0.78")	10 - 120 (-0/+2 mm)
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers.		

Key Characteristic	Test Method	Units - SI	Grade: P1R	Grade: C3R
Density	IEC 61061	g/cm ³	0.70 - 0.90	0.90 - 1.10
Flexural Strength	ISO 178	N/mm ²	130	180
Modulus of Elasticity	ISO 178	N/mm ²	1,000	700
Tensile Strength	ISO 527	N/mm ²	110	80
Compressive Strength (Perpendicular)	ISO 604	N/mm ²	100	240
Compressive Strength (Parallel)	ISO 604	N/mm ²	70	70
Impact Strength (Perpendicular)	IEC 61061	kJ/m ²	42	30
Impact Strength (Parallel)	IEC 61061	kJ/m ²	37	22
Maximum Temperature	DIN 7707	°C	130	130
Oil Absorption	IEC 61061	%	48	30
Contamination of Dielectric Liquids	IEC 61061	--	< 0.1	<0.1
Electrical Strength (Perpendicular)	IEC 61061	kV/mm	13	15
Electrical Strength (Parallel)	IEC 61061	kV/mm	> 80	> 80
Loss Angle	IEC 250	Tan δ	0.01	0.01
Comparative Track Index	IEC 60112	CTI	300	300

Note: The above test results represent mean values.

All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the use contemplated, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.