



Composites For Today's Challenges

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Lamitex® XXRK-1 Radiolucent Paper Phenolic

Lamitex® XXRK-1 is a black radiolucent paper/phenolic laminate with a melamine cover sheet on one side for cosmetic applications. A brown version (XXRK) is also available with no melamine cover sheet or as laminated with a pressing tin finish. It has high mechanical properties, moderate electrical insulation properties and low X-ray resistance. Typical applications are X-ray screening tables and hospital beds.

Mechanical Properties

		ASTM	Values
Thickness			5.0 to 9.0 mm
Flexural Strength - Side with melamine "UP"	Lengthwise	ISO 178	240 MPa
	Crosswise		180 MPa
Modulus of elasticity - Side with melamine "UP"	Lengthwise	ISO 178	17,000 MPa
	Crosswise		12,000 MPa
Compressive Strength	Parallel to laminations	ISO 604	200 MPa
	Perpendicular to laminations		320 MPa
Izod Impact Strength (.500" thick)	Parallel to laminations	ISO 180/2A	3.5 kJ/m ²
Shear Strength (.062")	Parallel to laminations	ISO 893-2	35 MPa
Tensile Strength		ISO 527	130 MPa

Electrical Properties

Electric Strength in oil @ 90C:		
3 mm, Perpendicular to Laminations	IEC 243-1	4 kV/mm
25 mm, Parallel to Laminations	IEC 243-1	15 kV/ 25 mm
Insulation resistance after immersion in water	IEC 167	100 MΩ
Comparative Tracking Index		500 CTI

Physical and Thermal Properties

Thermal endurance index at 20,000 h	IEC 216-1	125° C
Flammability at thickness > 8.0 mm	IEC 707	FV-0
Thermal conductivity	ISO 2581	0.25 W/mK
Density	ISO 1183/A	1.4 g/cm ³
Water absorption 50 x 50 x 9mm	ISO 62/1	150 mg
Water absorption 50 x 50 9mm	ISO 62/1	0.50%
Coefficient of Thermal Expansion (x-axis/y-axis)	TMA 30-100°C	16 / 25 x 10-6/K

Sheet sizes: 1250 mm x 2500 mm or 1270 mm 3050 mm

Thickness range: 5.0 to 9.0 mm

9.0 mm Thickness tolerance: +/- 0.3mm

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 Lamitex, LLC be liable for incidental or consequential loss or damage.

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