



## Properties of XINXING ground mats

<b>Chemical Resistance</b>	<b>HPDE</b>
Acids - concentrated	Good - Fair
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Aromatic hydrocarbons	Fair
Greases and Oils	Good - Fair
Halogenated Hydrocarbons	Fair - Poor
Halogens	Fair - Poor
Ketones	Good - Fair
<b>Electrical Properties</b>	
Dielectric constant @ 1Mhz	2.3 - 2.4
Dielectric strength (kN mm <sup>-1</sup> )	22
Dissipation factor @ 1Mhz	1-10x10 <sup>-4</sup>
Surface resistivity (Ω*cm)	10 <sup>13</sup>
Volume resistivity (Ω*cm)	10 <sup>15</sup> - 10 <sup>18</sup>
<b>Physical Properties</b>	
Density (g cm <sup>3</sup> )	0.95
Charpy Notched Impact Strength (mJ/mm <sup>2</sup> )	no break
Shore hardness D	62 - 68
Limiting oxygen index (%)	17
Radiation resistance	Fair
Refraction index	1.54
Resistance to Ultra-violet	Poor
Water absorption (%)	<0.01
Colour	
Odour	
<b>Thermal Properties</b>	
Flammability	HB
Coefficient of thermal expansion (x10 <sup>6</sup> K <sup>-1</sup> )	100 - 200
Heat - deflection temperature - 0.45Pa (°C)	75
Heat - deflection temperature - 1.8Pa (°C)	46
Specific heat (J K <sup>-1</sup> kg <sup>-1</sup> )	1900
Crystalline grain melting range	135 to 145
Thermal conductivity @23°C (Wm <sup>-1</sup> K <sup>-1</sup> )	0.45 - 0.52
Upper working temperature (°C)	55 - 120