



## Ketonolic® 3021 Phenolic Paper laminated Sheet Properties Data Sheet

### ① Raw material description

<b>Standard Grade:</b>	Laminated	<b>Appearance color:</b>	---
<b>Applications:</b>	Processing materail, sheet, board, generator, all kinds of carbon-film potentionmeter, testing fixture.		
<b>Remarks:</b>	This product is used as insulation structure component for electric engine and electric equipment of higher mechanical performance, as well as used in transformer.		

### ② Raw material technical datasheet

Property item	Test conditions	Testing method	Testing data	Unit
<b>I. Physical property</b>				
<b>Density</b>	---	GB/T5130	1.30-1.40	g/cm <sup>3</sup>
<b>Water absorption</b>	0.4mm	GB/T5130	≤160	mg
	3mm	GB/T5130	≤200	
	25mm	GB/T5130	≤570	
	processing to 22.5 on one side	GB/T5130	≤684	
<b>II. Mechanical property</b>				
<b>Tensile modulus</b>	---	GB/T5130	≥100	Mpa
<b>Adhesive strength</b>	---	GB/T5130	≥3200	N
<b>Vertical flexure strength</b>	---	GB/T5130	≥120	Mpa
<b>Vertical compression strength</b>	---	GB/T5130	≥250	Mpa
<b>III. Thermal property</b>				
<b>Max. working temperature(long time)</b>	---	UL746B	120	°C
<b>IV. Electrical property</b>				
<b>Dielectric constant</b>	---	GB/T5130	≤5.5	10 <sup>6</sup> Hz
<b>Dielectric dissipation factor</b>	---	GB/T5130	≤0.05	10 <sup>6</sup> Hz
<b>Insulation resistance after immersion</b>	---	GB/T5130	≥1 × 10 <sup>7</sup>	Ω
<b>Vertical electric strength</b>	0.4mm put in the transformer oil for 90 ± 2 °C	GB/T5130	≥15.7	MV/m
	1.8mm put in the transformer oil for 90 ± 2 °C	GB/T5130	≥9.6	MV/m
	2.0mm put in the transformer oil for 90 ± 2 °C	GB/T5130	≥9.3	MV/m
	3.0mm put in the transformer oil for 90 ± 2 °C	GB/T5130	≥8.4	MV/m
<b>Parellel breakdown voltage</b>	put in the transformer oil for 90 ± 2 °C	GB/T5130	≥20	kV

NOTE: 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup>, 1 Mpa = 1 N/mm<sup>2</sup>, 1kV/mm = 1 MV/m

#### Statement:

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Quanda will not provide any legally binding guarantee of certain properties, or any suitability.