

## Quality Certification

<b>Product Name: PHENOLIC COTTON CLOTH LAMINATED SHEETS</b>				Test No.:20191012	
Type: <b>3026 (21 yarns)</b>				Test Date: 20191012	
Product Standard:GB/T 1303.6-2009					
Testd Room Temperature: 15 °C					
Relative humidity: 65 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.30~1.45	1.40	
2	Flexural strength perpendicular to laminations	Mpa	≥91	119	
3	Tensile strength	Mpa	≥55	87.5	
4	Impact strength parallel to laminations (Notched Charpy)	Kj/m <sup>2</sup>	≥6.0	8.5	
5	Water absorption	Mg	≤229	155	
6	Insulation resistance After soaking	Ω	≥1.0×10 <sup>6</sup>	2.0×10 <sup>6</sup>	
7	Dielectric strength parallel to lamination	KV	≥1	2	
8	Dielectric strength perpendicular to lamination	KV	≥0.65	1	
Result		Qualified			

<b>Product Name: PHENOLIC COTTON CLOTH LAMINATED SHEETS</b>				Test No.:20191012	
Type: <b>3025A (10 yarns)</b>				Test Date: 20191012	
Product Standard:GB/T 1303.6-2009					
Testd Room Temperature: 15 °C					
Relative humidity: 65 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.45~1.5	1.48	
2	Flexural strength perpendicular to laminations	Mpa	≥91	98	
3	Tensile strength	Mpa	≥55	57.5	
4	Impact strength parallel to laminations (Notched Charpy)	Kj/m <sup>2</sup>	≥6.0	7.2	
5	Water absorption	Mg	≤229	213	
6	Insulation resistance After soaking	Ω	≥1.0×10 <sup>6</sup>	2.0×10 <sup>6</sup>	
7	Dielectric strength parallel to lamination	KV	≥1	1.35	
8	Dielectric strength perpendicular to lamination	KV	≥0.65	0.82	
Result		Qualified			

<b>Product Name: PHENOLIC COTTON CLOTH LAMINATED SHEETS</b>				Test No.:20191012	
Type: <b>3025B (7 yarns)</b>				Test Date: 20191012	
Product Standard:GB/T 1303.6-2009					
Testd Room Temperature: 18 °C					
Relative humidity: 65 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.45-1.50	1.50	
2	Flexural strength perpendicular to laminations	Mpa	≥36	38	
3	Tensile strength	Mpa	≥34	37.5	
4	Impact strength parallel to laminations (Notched Charpy)	Kj/m <sup>2</sup>	≥5.0	6.6	
5	Dielectric strength perpendicular to lamination	Mv/m	≥0.8	1.14	
Result		Qualified			

<b>Product Name: PHENOLIC PAPER LAMINATED SHEETS</b>				Test No.:20191012	
Type: <b>3021</b>				Test Date: 20191012	
Product Standard:GB/T 1303.6-2009					
Testd Room Temperature: 18 °C					
Relative humidity: 56 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.35-1.45	1.41	
2	Flexural Strength Lengthwise	Mpa	≥120	163	
3	Tensile strength Lengthwise	Mpa	≥100	139	
4	Dielectric Strength Parallel to Lamination	Kv	≥20	46	
5	Water Absorption	mg	≤249	212	
6	Insulation Resistance After Soaking	Ω	≥1.0x10 <sup>7</sup>	1.2x10 <sup>7</sup>	
7	Working temperature	°C	120	120	
Result		Qualified			

**Quality Certification**

<b>Product Name: EPOXY-PHENOLIC GLASS LAMINATED SHEETS</b>					Test No.:20191012
Type: <b>FR4/G10</b>					Test Date: 20191012
Product Standard:GB/T1303.4-2009					
Testd Room Temperature: 18 °C					
Relative humidity: 56 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.70-2.0	1.98	
2	Flexural Strength Lengthwise	Mpa	≥340	473	
3	Tensile strength Lengthwise	Mpa	≥314	374	
4	Impact Strength Flatwise (Notched Charpy)	Kj/m <sup>2</sup>	≥33	46.8	
5	Dielectric Strength Perpendicular to Lamination	MV/m	≥11.8	12.6	
6	Dielectric Strength Parallel to Lamination	KV	≥35	78.3	
7	Insulation Resistance After Soaking	MΩ	≥5.0x10 <sup>4</sup>	1.4x10 <sup>5</sup>	
8	Water Absorption	%	≤0.71	0.03	
9	Working temperature	°C	130	136	
Result		Qualified			

<b>Product Name: EPOXY-PHENOLIC GLASS LAMINATED SHEETS</b>					Test No.:20191012
Type: <b>G11</b>					Test Date: 20191012
Product Standard:GB/T1303.4-2009					
Testd Room Temperature: 18 °C					
Relative humidity: 56 %					
No.	Tested Item	Unit	Standard	Result	Note
1	Density	g/cm <sup>3</sup>	1.70-2.0	1.92	
2	Flexural Strength Lengthwise	Mpa	≥340	456	
3	Tensile strength Lengthwise	Mpa	≥314	364	
4	Impact Strength Flatwise (Notched Charpy)	Kj/m <sup>2</sup>	≥33	44.1	
5	Dielectric Strength Perpendicular to Lamination	MV/m	≥11.8	13.5	
6	Dielectric Strength Parallel to Lamination	KV	≥35	81	
7	Insulation Resistance After Soaking	MΩ	≥5.0x10 <sup>4</sup>	1.6x10 <sup>5</sup>	
8	Water Absorption	%	≤0.71	0.04	
9	Working temperature	°C	155	156	
Result		Qualified			

*For and on behalf of*  
**WUHAN FENHAR NEW MATERIAL CO., LIMITED**  
**武漢凡華新材料有限公司**  
  
 Authorized Signature(s)