



CUSTOM ELECTRICAL INSULATION

Technical data sheet - UPGM203 laminated sheet for switchgear

SINCE 2017

ISO 9001

OEM / ODM

Well Electric - WELLELE

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UPGM203 (GPO-3)

- Temperature grade: F glass (155℃)
- Color: white, red, gray, specified color
- Standard Size specification: 2000x1000mm, 1220x1020mm,
- Grinding processing: Tolerance: -0.25~0.25mm

Property

No.	Items	unit	property	test method
1	Appearance	—	Smooth surface, no bubbles, no cracks	visual
2	Density	g/cm ³	1.75-1.90	ISO 1183-1(Method A)
3	Water Absorption ,after 24h immersion at 23° C	%	≤0.3	ISO 62 (Method 1)
4	Flexural Strength at 23° C,perpendicular to laminations ⊥	Mpa	≥160	ISO178: 2001
5	Flexural Strength at 130° C,perpendicular to laminations ⊥	Mpa	≥90	ISO178: 2001
6	Modulus of elasticity in flexural perpendicular to laminations ⊥	Mpa	≥1.0×10 ⁴	ISO178: 2001
7	Charpy impact Strength parallel to laminations (unnotched)	KJ/m ²	≥80	ISO 179-1:2000
8	Tensile strength	Mpa	≥80	ISO527-4:1997
9	Compressive Strength at 23°C,perpendicular to laminations	Mpa	≥150	ISO604:2002
10	Shear strength parallel to laminations //	N/mm	≥22	IEC 60893-2:2003
11	temperature of deflection under load Tf=1.8Mpa	° C	≥240	ISO 75-2:2003
12	Temperature index (TI) Long-term heat resistance temperature	—	155	IEC 60216
13	Insulation Resistance	Ω	≥1.0×10 ¹²	IEC 60167
	normal		1.0×10 ¹⁰	
	After in water 24hours later			
14	dielectric strength step bu step ,in oil at 23° C , Thickness1mm ⊥	Kv/mm	≥20	IEC 60243
15	dielectric strength step bu step ,in oil at 23° C , Thickness3mm ⊥	Kv/mm	≥15	IEC 60243
16	dielectric loss factor(1mhz)	-	≤0.015	IEC 60250
17	dielectric constant(1mhz)	-	≤4.5	IEC 60250
18	Arc Resistance	S	≥180	IEC 61621
19	tracking resistance (CTI)	V	≥600	IEC 60112
20	flammability rating	class	V-0	UL94 3mm
21	Oxygen index	%	≥30	ISO 4589-1

REMARKS:

- 1、The color for SMC are usually red,yellow, blue, white, dark, gray etc, and can dye according to requirements.
- 2、In view of product differentiation , User can confirm the performance .

Thickness unit mm

dielectric strength: KV /lmin In air

Thickness (mm)	3	4	5~6	>6	>6.5
dielectric strength	≥25	≥33	≥42	>48	>50