



**Engineering
Plastics**

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Typical Properties Data Sheet

The Supplier of Engineering Plastics
Rods, Sheets, Tubes, Profiles and Machining Parts

Ketonolic®G10 Technical Property Data Sheet

① Draw materials description				
Standard grade:	Laminated grade	Appearance color:	---	
Application:	Plate, rod; chemical machinery parts, general machinery parts and gears, generators, pad, base, bezel, making handle, transformers, motors and electrical insulation components.			
Characteristics:	Insulation, corrosion resistance, wear-resistant			
② Draw materials properties data				
Property item	Test conditions(status)	Testing method	Testing data	Unit
I. Physical properties				
Density	---	GB/IPC4101	2.1±0.05	g/cm ³
Water absorption	Thickness:1.6 mm	GB/IPC4101	≤ 19	mg
Flammability class	---	UL94	HB	Class
II. Mechanical properties				
Tensile Strength	---	GB/IPC4101	≥ 240	MPa
Vertical layer direction flexural strength	normal	GB/IPC4101	≥ 340	MPa
Vertical layer direction compression strength	---	GB/IPC4101	≥ 350	MPa
Parallel layer direction shearing strength	---	GB/IPC4101	≥ 34	MPa
Parallel layer direction charpy impact strength	simply-supported beam method	GB/IPC4101	≥ 33	kJ/m2
Bonding strength	---	GB/IPC4101	8.0-1.0	KN
Young's modulus	---	GB/IPC4101	21560-24500	MPa
Hardness-Rockwell	---	GB/IPC4101	120-125	R (Scale)
Hardness-Shore D	---	DIN 53505	96	D
III. Thermal Properties				
Thermal resistance	---	GB/IPC4101	≥ 170	°C
Max working temperature-short time	30S	GB/IPC4101	280	°C
Max working temperature-long time	---	GB/IPC4101	150	°C
Melting point(Processing pressing plate)	---	GB/IPC4101	203°C	°C
Vertical layer direction coefficient of linear thermal expansion	RT~200°C	GB/IPC4101	1.7×10 ⁻⁴	1/°C
Parallel layer Direction coefficient of linear thermal expansion	RT~200°C	GB/IPC4101	9.2×10 ⁻⁶	1/°C
IV. Electrical properties				
relatively dielectric constant	50Hz	GB/IPC4101	≤5.5	---
Dielectric dissipation factor	50Hz	GB/IPC4101	≤0.04	---
Electric grinding resistance	---	GB/IPC4102	200-300	V (CTI)
Insulation resistance after immersion in	---	GB/IPC4101	≥ 1.3×10 ¹²	Ω
Volume resistance	---	GB/IPC4102	10 ¹⁵	Ω * cm
Surface resistance	---	GB/IPC4103	10 ¹⁵	Ω

Vertical layer direction electric strength	20s gradual boost rule in 90°C oil	GB/IPC4101	≥ 13.7	MV/m
Parallel layer direction breakdown voltage	20s gradual boost rule in 90°C oil	GB/IPC4101	> 50	kV
Arc resistant	---	GB/IPC4101	120-140	sec

NOTE: $1 \text{ g/cm}^3 = 1,000 \text{ kg/m}^3$, $1 \text{ Mpa} = 1 \text{ N/mm}^2$, $1 \text{ kV/mm} = 1 \text{ MV/m}$

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.