

Electrical insulating materials

Rigidiso® RI 40204

Composition: Rigidiso® RI 40204 is a laminate made of epoxy-resin glass cloth and conforms to the following standards:

IEC 60893	EP GC 203
DIN 7735	HGW 2372.4 H
BS (GB)	3953-EP 7
NEMA L1 (USA)	G 11
NF C26 (F)	151-VT-EE 2
VSM (CH)	S-EP GC 3
MIL SPEC	24768/3

Properties: Rigidiso® RI 40204 is insulating up to insulation class H (180°C), furthermore it has very good mechanical properties. In addition to that it is environmentally neutral, free of asbestos, dioxin, cadmium and halogen. Rigidiso® RI 40204 is designed in accordance with flammability class UL 94 level HB.

Applications: Rigidiso® RI 40204 is used as construction material with higher requirements to the insulation properties.

Delivery forms: Rigidiso® RI 40204 is available in thicknesses of 0.2 mm – 80 mm as well as sheet (2440 x 1220 mm and 1150 x 2200 mm with a max. sheet size of 2440 x 1240 mm). Furthermore Rigidiso® RI 40204 can also be delivered as cut, milled, die-cut or water-jet cut parts. In addition it can be equipped with a special varnish to meet an CTI of more than 600.

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Standard colour: Rigidiso® RI 40204 is delivered in green-brown colour.

Storage conditions: Rigidiso® RI 40204 is durable unlimited under normal conditions (20°C, 50% rel. air humidity).

Property	Test method	Unit	Value
Density	ISO 1183 / A	g/cm ³	1,7 – 1,9
Elasticity module of flexural test	ISO 178	Mpa	18 x 10 ³
Tensile strength	ISO 527	Mpa	220
Limiting temperature	IEC 216	°C	180
Comparative tracking index	DIN / IEC 112	CTI	600
Thermal conductivity	DIN 52612	W/mK	0,3
Thermal class	IEC Publ.85	Level	H
Water absorption (5mm)	ISO 62 / 1	mg	30
Flexural strength untreated at 23°C	DIN 53452	MPa	350
Impact resistance a _{n10} and a _{n15}	DIN 53453	kJ/m ²	100
Notch impact resistance a _{k10}	DIN 53453	kJ/m ²	50
Pressure resistance	DIN 53454	MPa	150
Splitting strength	DIN 53463	N	3000
Resistance between plugs after 24 hours water storage at 23°C	DIN 53482	Ohm	5 x 10 ¹⁰
1 Minute test voltage in layer direction at 90°C after pre-treatment	DIN 53481	kV	40
1 Minute test voltage vertical to layer at 90°C after pre-treatment	DIN 53481	kV	40
Dissipation factor tan d 50 Hz 96 hours 105°C 1 MHz 24 hours water storage	DIN 53483	max.	0,05 0,04

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Property	Test method	Unit	Value
Dielectric constant	DIN 53483	»	5
Electrolytic corrosion	DIN 53489	max.	AN 1,4
Coefficient of linear expansion	VDE 0304/2	10 ⁻¹⁰ /K	10 – 20
Limiting value of limiting temperature according to flexural strength	-	MPa	175
Incandescence resistance	DIN 53459	Level	2a

Thickness	0.3	0.5	0.8	1.0	1.5	2.0	2.5	3.0	3.5	4.0
Availability	○	●	●	●	●	●	●	●	●	●

Thickness	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
Availability	●	●	●	●	●	●	●	●	●	●

Thickness	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	25.0
Availability	●	●	●	●	●	●	●	●	●	●

Thickness	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
Availability	●	●	●	○	○	○	○	○	○	○

- Pre-material on stock
- Delivery time pre-material 2 weeks

Trademark Information: Rigidiso® is a registered trademark of the company Dr. Dietrich Müller GmbH, Germany.

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Please note:

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and user from own tests and inspections because of the plenty of possible effects. There is no judicial binding assurance of certain properties or of the qualification for a concrete application in our declaration. We recommend consulting us in individual cases. The acceptor of our products has to observe possible industrial property rights as well as present laws by himself.

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