

## Laminates

### Rigidiso® RI 40320

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**Composition:** Rigidiso® RI 40320 is a manufactured epoxy resin and glass cloth laminate and meets the following standards:

IEC 60893      EP GC 205  
DIN 7735      HGW 2370.4

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**Properties:** Rigidiso® RI 40320 is insulating up to insulation class E (120°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 40320 is designed in accordance with flammability class UL 94 level V-1.

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**Applications:** Rigidiso® RI 40320 is used whenever good mechanical and electrical properties are required in the low voltage area for example for laboratory benches, frontal covering in the inner area and basic plates for control units.

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**Delivery forms:** Rigidiso® RI 40320 is available in thicknesses of 2.0 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 40320 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 a CTI of more than 600.

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**Standard colour:** Rigidiso® RI 40320 is delivered in brown colour and it is also available in black colour.

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## Rigidiso® RI 40320

**Storage conditions:** Rigidiso® RI 40320 can be stored unlimited under normal conditions (20°C, 50% rel. air humidity).

Property	Test method	Unit	Value
Density	ISO 1183 / A	g/cm <sup>3</sup>	1.8 – 1.9
Elasticity module of flexural test	DIN 53457	MPa	16000
Tensile strength	DIN 53455	MPa	220
Limiting temperature	IEC 216	°C	155
Comparative tracking index	IEC 112	CTI	180
Thermal conductivity	-	W/mK	0.3
Thermal class	-	-	B
Water absorption (5mm)	ISO 62 / 1	mg	6
Flexural strength untreated at 23°C	DIN 53452	MPa	350
Notch impact resistance ak10	DIN 53453	kJ/m <sup>2</sup>	70
Pressure resistance	DIN 53454	MPa	180
Splitting strength	DIN 53463	N	3000
Resistance between plugs after 24 hours water storage at 23°C	DIN 53482	Ohm	10 <sup>10</sup>
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
Dielectric dissipation factor tan d – 50 Hz 96 hours 105°C 1 MHz 24 hours water storage	DIN 53483	max.	0.05 004
Dielectric constant	DIN 53483	-	5
Electrolytic corrosion	DIN 53489	max.	AN 1,4
Coefficient of linear expansion	VDE 0304/	10 <sup>-6</sup> /K	10 – 20
Limiting value of limiting temperature according to flexural strength	-	MPa	175
Incandescence resistance	DIN 53459	Level	2a
Water absorption – 4 mm thick	DIN 53495	mg	28
Impact resistance an10 und an15	DIN 53453	kJ/m <sup>2</sup>	100

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## Rigidiso® RI 40320

<b>Thickness</b>	0.3	0.5	0.8	1.0	1.5	2.0	2.5	3.0	3.5	4.0
<b>Availability</b>	○	●	●	●	●	●	●	●	●	●

<b>Thickness</b>	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0
<b>Availability</b>	●	●	●	●	●	●	●	●	●	●

<b>Thickness</b>	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	25.0
<b>Availability</b>	●	●	●	●	●	●	●	●	●	●

<b>Thickness</b>	30.0	35.0	40.0	45.0	50.0	60.0	70.0	80.0	90.0	100.0
<b>Availability</b>	●	●	●	○	○	○	○	○	○	○

- **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.

**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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