

## Laminates

### Rigidiso® RI 40104

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**Composition:** Rigidiso® RI 40104 is a laminate made of melamine-resin-cotton and conforms to the following standards:

IEC 60893	MF CC 201
DIN 7735	HGW 2282.5
BS (GB)	2572-F3
NEMA L1 (USA)	C
NF C26 (F)	150C
VSM (CH)	S-PF-CC 1
MIL SPEC	24768/16

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**Properties:** Rigidiso® RI 40104 is insulating up to insulation class Y (95°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 40104 is designed in accordance with flammability class UL 94 level HB.

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**Applications:** Rigidiso® RI 40104 is used as construction material with higher requirements to the insulation properties.

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**Delivery forms:** Rigidiso® RI 40104 is available in thicknesses of 0.5 mm – 20 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 40104 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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## Rigidiso® RI 40104

**Standard colour:** Rigidiso® RI 40104 is delivered in white colour.

**Storage conditions:** Rigidiso® RI 40104 is durable unlimited under normal conditions (20°C, 50% rel. air humidity).

Property	Test method	Unit	Value
Density	ISO 1183 / A	g/cm <sup>3</sup>	ca. 1,4
Elasticity module of flexural test	ISO 178	Mpa	5 x 10 <sup>3</sup>
Tensile strength	ISO 527	Mpa	60
Impact resistance	ISO 179 / 3C	kJ/m <sup>2</sup>	6
Limiting temperature	IEC 216	°C	95
Comparative tracking index	DIN / IEC 112	CTI	560
Thermal conductivity	DIN 52612	W/mK	0,2
Thermal class	IEC Publ.85	Level	Y
Water absorption (5mm)	ISO 62 / 1	mg	190
Flexural strength untreated at 23°C	DIN 53452	MPa	90
Impact resistance a <sub>n10</sub> and a <sub>n15</sub>	DIN 53453	kJ/m <sup>2</sup>	6
Notch impact resistance a <sub>k10</sub>	DIN 53453	kJ/m <sup>2</sup>	3
Notch impact resistance a <sub>k15</sub>	DIN 53453	kJ/m <sup>2</sup>	4
Pressure resistance	DIN 53454	MPa	200
Splitting strength	DIN 53463	N	2500
Resistance between plugs after 24 hours water storage at 23°C	DIN 53482	Ohm	10 <sup>7</sup>
1 Minute test voltage in layer direction at 90°C after pre-treatment	DIN 53481	kV	20
1 Minute test voltage vertical to layer at 90°C after pre-treatment	DIN 53481	kV	10

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Property	Test method	Unit	Value
Dielectric constant	DIN 53483	-	6
Limiting value of limiting temperature according to flexural strength	-	MPa	45
Incandescence resistance	DIN 53459	Level	2a
Coefficient of linear expansion	VDE 0304/2	10 <sup>-10</sup> /K	20 – 40
Electrolytic corrosion	DIN 53489	max.	A/B 1,8
Flammability	UL 94	-	V0

Thickness	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
Availability	●	●	●	●	●	●	●	●	●

Thickness	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0
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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