

## Laminates

### Rigidiso® RI 40400

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**Composition:** Rigidiso® RI 40400 is a manufactured polyester resin and glass cloth laminate and meets the following standards:

IEC 60893	UPGM 203
DIN 7735	HM 2471
BS (GB)	3953-UP 3
NEMA L1 (USA)	GPO-3
NF C26 (F)	153-Vm P2e
VSM (CH)	S-UP GM 3
MIL SPEC	24768/6

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**Properties:** Rigidiso® RI 40400 is insulating up to insulation class F (155°C), furthermore it has very good mechanical properties. In addition to that it is environmentally neutral, free of asbestos, dioxin, cadmium and halogen.

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**Applications:** Rigidiso® RI 40400 is used whenever good mechanical and electrical properties are required. Like for example at electrical constructions, distribution boxes, rail supports, etc.

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**Delivery forms:** Rigidiso® RI 40400 is available in thicknesses of 0.15 mm – 150 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 40400 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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## Rigidiso® RI 40400

**Standard colour:** Rigidiso® RI 40400 is delivered in white colour.

**Storage conditions:** Rigidiso® RI 40400 can be stored unlimited under normal conditions (20°C, 50% rel. air humidity).

Property	Test method	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	ca. 1.9
Tensile strength	ISO 527	N/mm <sup>2</sup>	124
Flame behaviour	UL 94	-	V-0/5 mm S4/ST2/SR2 M2/F1
Thermal class	IEC 60085	-	F
Comparative tracking index	IEC 60112	CTI	600
Flexural strength untreated at 23°C	DIN 53452	MPa	200
Impact resistance a <sub>n10</sub> und a <sub>n15</sub>	DIN 53453	kJ/m <sup>2</sup>	187
Notch impact resistance a <sub>k10</sub>	DIN 53453	kJ/m <sup>2</sup>	150
Pressure resistance	DIN 53454	MPa	188
Splitting strength	DIN 53463	N	2290
Resistance between plugs after 24 hours water storage at 23°C	DIN 53457	MPa	10570
1 Minute test voltage in layer direction at 90°C after pre-treatment	DIN 53482	Ohm	7.1 x 10 <sup>8</sup>
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 53481	kV	34

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Property	Test method	Unit	Value
Dielectric constant	DIN 53483	max.	0.0092 0.0372
Electrolytic corrosion	DIN 53483	»	5
Splitting strength	DIN 53489	max.	A/B 1.4
Light arc resistance	DIN 53484	Level	180 sec.
Thermal conductivity	DIN 52612	W/m*k	0.63
Coefficient of linear expansion	VDE 0304/2	10 <sup>-6</sup> /K	17
Limiting temperature	VDE 0304/2	°C	155
Incandescence resistance	DIN 53459	Level	2a
Water absorption – 4 mm thick	DIN 53459	mg	60

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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