



Technical Datasheet

Special Impregnating resin IMTEC 100

Description: Mixture of mono- and polyfunctional methacrylic monomers

Physical data of liquid resin:

Appearance:	yellow to light yellow and clear, fluorescent
Smell:	Esterlike
Flammable point:	102 °C (DIN 51758)
Boiling point:	240 °C at 1013 mbar
Surface tension:	29,8 mN/m
Viscosity at 20 °C:	13,7 mm ² /s
Density at 20 °C:	1,041 ±0,003g/ml
Vapour pressure at 20 °C:	0,1 mbar
Washability:	very good
Solubility in water:	107 g/ml
Storage conditions:	non-catalysed: 2 year at max. 35 °C catalysed: ½ year at max. 25 °C
Gel time at 90 °C:	2 - 6 Minuten degased 3 - 7 Minuten not degassed
Volume expansion:	1/K
Heat capacity:	0,46 kJ/kg K

Physical properties of hardened resin:

Appearance:	Clear plastic with or without some cracks. Fluorescent execution to retrieve the plastic in the porosity of the castings using an UV-lamp.
Density:	1,2 g/ml
Shrinkage:	≈ 15%
Hardness:	75 Shore A
Temperature range:	-50 °C to 200 °C Aluminium short time up to 250 °C -50 °C to 200 °C Iron and Copper, short time up to 240 °C Depends on the size of the porosity.
Chemical resistance:	Chemical resistance list is available upon request.
Linear heat expansion coefficient:	40 °C = (120 ±5) 10 ⁻⁶ K ⁻¹ (*) 60 °C = (130 ±4) 10 ⁻⁶ K ⁻¹ (*) 80 °C = (152 ±2) 10 ⁻⁶ K ⁻¹ (*) 100 °C = (157 ±2) 10 ⁻⁶ K ⁻¹ (*)
Pressure resistance:	according to ambient metal
Heat conductivity:	0,18 °C W/m K (*)
Specific heat:	1,47 KJ/kg K (*)
Surface resistance:	10 ¹⁵ Ω DIN 53482 (*)
Specific volume resistance:	>10 ¹⁵ Ω cm DIN 53482 (*)
Dielectric number DIN53483:	3,5 ±0,4 at 50 Hz (*) 2,7 ±0,5 at 10 ⁶ Hz (*)
Dielectrical breakdown voltage:	450±50 kV DIN 53481 (*)
Dielectric loss factor DIN 53483:	0,05 ±0,01 tan α at 50Hz (*) 0,022 ±0,018 tan α at 10 ⁶ Hz (*)

(*) No defined values but typical values for this type of resin.

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