



## Technical Datasheet

### Special Impregnating resin IMTEC 300

Description: Mixture of mono- and polyfunctional acrylic and methacrylic monomers

**Physical properties of liquid resin:**

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Appearance:	Colourless to light yellow and clear, fluorescent on demand
Smell:	Esterlike
Flammable point:	> 100 °C
Boiling point:	≈ 240 °C at 1013 mbar
Surface tension:	29,8 mN/m
Viscosity at 20 °C:	8,8 mm <sup>2</sup> /s
Density at 20 °C:	0,94 ± 0,01g/ml
Vapour pressure at 20 °C:	0,1 mbar
Washability:	very good
Solubility in water:	107 g/l
Storage conditions:	- non-catalysed: 1 year at max. 35 °C - catalysed: ½ year at max. 25 °C - modifications through metals, alkalis, peroxides and direct sunlight
Gel time at 90 °C:	2 – 6 minutes degassed 3 – 7 minutes not degassed
Volume expansion:	1/K
Heat capacity:	0,46 kJ/kg K

**Physical properties of hardened resin:**

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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:	1,0 g/ml
Temperature range:	-50 °C to 200 °C Aluminium and Copper, short time up to 250 °C -50 °C to 230 °C Iron, short time up to 280 °C Depends on the size of the porosity.
Shrinkage:	10 %
Hardness:	10 Shore D at 20 °C
Chemical resistance:	Chemical resistance list is available on request.
Linear heat expansion coefficient:	40 °C = (120 ± 5) 10 <sup>-6</sup> K <sup>-1</sup> (*) 60 °C = (130 ± 4) 10 <sup>-6</sup> K <sup>-1</sup> (*) 80 °C = (152 ± 2) 10 <sup>-6</sup> K <sup>-1</sup> (*) 100 °C = (157 ± 2) 10 <sup>-6</sup> K <sup>-1</sup> (*)
Resistance against radioactivity:	Half time dosis 10-100 10 <sup>4</sup> J/kg (*) (Short time resistance absence of oxygen, thick parts, high strong power) The radiation system has no great influence on the result.
Pressure resistance:	ACC. to ambient metal
Heat conductivity:	0,18 °C W/m K (*)
Specific heat:	1,47 KJ/kg/K
Surface resistance:	10 <sup>15</sup> Ω DIN 53482 (*)
Specific volume resistance:	>10 <sup>15</sup> Ω cm DIN 53482 (*)
Dielectric number DIN53483:	3,5 ± 0,4 at 50 Hz (*) 2,7 ± 0,5 at 10 <sup>6</sup> Hz (*)
Dielectric breakdown voltage:	450±50 kV DIN 53481 (*)
Dielectric loss factor	0,05 ± 0,01 tan α at 50Hz (*)
DIN 53483:	0,022 ± 0,018 tan α at 10 <sup>6</sup> Hz (*)

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

All information given herein corresponds to our latest status of knowledge. This information is neither a guarantee for product properties nor legally binding.