

## Special Impregnation Sealant IM4500

This sheet supersedes the one dated: 21.04.2015

**Description:** Cross linking mixture from mono- and polyfunctional methacrylate-monomers.

### Physical data of liquid resin:

**Appearance:** colorless to light yellow and clear, fluorescent on demand

**Smell:** Pleasant smell like ester

**Flammable point:** 102°C

**Boiling point:** 66°C at 1,33 mbar

**Viscosity at 20°C:** 10 mPas ± 1 mPas

29 ±1s Zahn Cup N° 1

24 ±1s Frikmar Becher N° 3

**Density at 20°C:** 0,927 ±0,003g/ml

**Vapour pressure at 20°C:** 0,1 mbar

**Washability:** very good

**Solubility in water:** 100 g/l

**Storage conditions\*:** non-catalyzed: 12 months at max. 35°C  
catalyzed: 1/2 year at max. 25°C (controlled)  
Minimal temperature of storage: 0°C  
reduction of catalyst possible  
Recommendation: aerate regularly by opening the cork.  
Modifications through metals, alkalis, peroxides and direct sunlight

(\* in original packaging; do not keep under inert gas

**Gel time at 90°C:** 2 - 7 minutes, recommended (catalyzed with 0.2 to 0.3%)

### Physical data 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:** 1,1 g/ml

**Temperature range:** from -50°C to 250°C

Permanent temperature load max. 200°C

Short temperature load max. 250°C temperature

resistance depends on size of porosity

**Chemical resistance:** IM4500 has very good chemical resistance to polar and non polar liquids

**Pressure resistance:** acc. to ambient metal

**Heat conductivity:** 0,18°C W/m K (\*)

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<b>Surface resistance:</b>	$10^{15} \Omega$ DIN 53482 (*)
<b>Specific volume resistance:</b>	$> 10^{15} \Omega$ cm DIN 53482 (*)
<b>Dielectric number DIN53483:</b>	3,5 $\pm$ 0,4 at 50 Hz (*) 2,7 $\pm$ 0,5 at $10^6$ Hz (*)
<b>Dielectric breakdown voltage:</b>	450 $\pm$ 50 kV DIN 53481 (*)
<b>Dielectric loss factor DIN 53483:</b>	0,05 $\pm$ 0,01 tan $\alpha$ at 50Hz (*) 0,022 $\pm$ 0,018 tan $\alpha$ at $10^6$ Hz (*)

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

### Releases of IM4500

- TÜV certificate for production of impregnating resins according to DIN ISO 9001 / EN29001 since 1993; renewal in 2009 according to DIN EN ISO 9001:2008
- TÜV certificate for production of impregnating resins according to DIN EN ISO 14001:2009 (environmental management; since December 2011)
- Gaz de France Report No 20 0151 from 5. April 2000.
- Additional approvals upon request

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