

## Insulation / Flame protection

### Resin 8601/30 (ex TG 68) + Hardener 8973 (ex 1073)

- 2-components polyurethane casting resin
- solvent-free system
- soft curing degree
- no halogenated flame-retardants
- high electrically insulating
- excellent adhesive properties
- wide operating temperature range
- suitable for low temperatures applications
- ideal for electronic components, e.g., coils, sensors, PCBs or capacitors

#### Product specification:

|                                  |  |                               |
|----------------------------------|--|-------------------------------|
| Mixing ratio (weight):           | Resin 8601   | 100 parts                     |
|                                  | Hardener 8973  | 20 parts                      |
| Viscosity (22°C):<br>(at 10 rpm) | Resin 8601   | 3'500 – 4'000 mPa·s           |
|                                  | Hardener 8973  | 15 – 35 mPa·s                 |
|                                  | Mixing viscosity   | 1'800 – 2'400 mPa·s           |
| Density (22°C):                  | Resin 8601   | 0.90 - 0.95 g/cm <sup>3</sup> |
|                                  | Hardener 8973  | 1.20 - 1.25 g/cm <sup>3</sup> |
| Colour:                          | Black  |                               |
| Pot life:                        | 25 – 35 minutes  |                               |
|                                  | The curing time depends on the thickness of the layer, the casting volume and the temperature. |                               |
| Curing time (22°C):              | 16 – 30 hours  |                               |
| Final hardness                   | 10 – 14 days   |                               |

**Physical properties:**

|                               |                            |                        |
|-------------------------------|----------------------------|------------------------|
| Shore-Hardness:               | A 25 – 35                  | ISO 868, DIN 53505     |
| Thermal conductivity:         | 0.3 W/(m·K)                | DIN EN ISO 22007       |
| Glass transition temperature: | -69.1 °C                   | TMA                    |
| Coefficient of expansion:     | 101.4 ppm/K<br>222.4 ppm/K | < Tg, TMA<br>> Tg, TMA |
| Shrinkage after curing:       | <1 %                       |                        |
| Water absorption:             | 0.2 % (30 days at 23°C)    |                        |
| Insulation class:             | B                          | IEC 60085              |
| Operating temperature:        | -80°C up to +130°C         |                        |
| Flammability classification:  | HB                         |                        |

**Electrical properties:**

|  |  |                             |
|--|--|-----------------------------|
| Dielectrical strength:                 | 25 kV/mm                               | IEC 60243-1, VDE 0303, TI.2 |
| Volume resistance:                     | 10 <sup>14</sup> Ω·cm (23°C/ 50% r.F.) | IEC 60243-1, VDE0303, TI.30 |
| Surface resistance:                    | 10 <sup>16</sup> Ω (23°C/ 50% r.F.)    | IEC 60243-1, VDE0303, TI.30 |
| Dielectric constant (ε <sub>r</sub> ): |  |                             |
| at 50 Hz, 23 °C                        | 3.2                                    | IEC 60250,                  |
| at 1 KHz, 23 °C                        | 3.0                                    | VDE 0303, TI.4              |
| at 1 MHz, 23 °C                        | 2.7                                    |                             |
| Dissipation factor:                    |  | IEC 60250,                  |
| (tan δ)                                |  | VDE 0303, TI.4              |
| at 50 Hz, 23 °C                        | 0.02                                   |                             |
| Coparative Tracking Index:             | CTI 600                                | IEC 60112, VDE 0303, TI.1   |

Shelf life: 6 months in sealed original containers when stored in dry conditions (15°C to 25°C).

Packaging: Resin and hardener are offered in separate packaging units.

RoHS: We hereby certify that all products are unexceptional RoHS conform according to the EU-directive 2011/65/EG (RoHS2) and the amendment of Directive 2015/863.

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