



BUILDING TRUST



RE 11700-(04) POLYOL RE 1060 ISOCYANATE ELECTRICAL POLYURETHANE RESIN SOFT – TRANSPARENT

DESCRIPTION

Transparent casting resin for LED inclusions and electronic components.

PROPERTIES

- High transparency (water clear)
- Solvent free
- Flexible
- Good UV resistance

| PHYSICAL PROPERTIES | | | | |
|---|-----------------|-------------------------|-----------------------|-------------|
| Composition | | POLYOL RE 11700-(04) | ISOCYANATE RE 1060 | MIXED |
| Mix ratio by weight | | 100 | 100 | |
| Mix ratio by volume at 25°C | | 100 | 87 | |
| Aspect | | liquid | liquid | liquid |
| Colour | | transparent | transparent | transparent |
| Viscosity at 25°C (mPa.s) | BROOKFIELD LVT | 70 | 1,200 | 250 |
| Specific gravity at 23°C | ISO 1675 : 1985 | 1.01 | 1.15 | - |
| Specific gravity of cured product at 23°C | ISO 2781 : 1996 | - | - | 1.13 |
| Pot life at 25°C on 200 g (min) | BROOKFIELD LVT | | | 20 |
| Gel time at 25°C on 200 g (min) | Gel Timer TECAM | | | 30 |
| Curing time at 25°C | Heures | | | 24 |

| MECHANICAL PROPERTIES at 23°C ⁽¹⁾ | | | | |
|--|--|----------------|---------|-----|
| Hardness | | ISO 868 : 2003 | Shore A | 70 |
| Tensile strength | | ISO 37 : 2011 | MPa | 2.5 |
| Elongation at break | | ISO 37 : 2011 | % | 75 |

⁽¹⁾Average values obtained on standardized specimens / Hardening 16 hours at 80°C

PROCESSING CONDITIONS

- Heat both parts at minimum 25°C in case of storage at a lower temperature.
- Mix the two parts during 2min with a metallic or plastic spatula.*
- **Degas the mixing 2 min under vacuum (minimum 5 mbar).**
- Cast in a mould without any trace of humidity (dry at minimum 6h at 50°C).
- Maximal casting thickness for optimal transparency: 10mm.
- For the first use, make an evaluation test on one specimen.
- During polymerisation, temperature must be between 23 and 30°C with relative humidity below 50% at 25°C and 40% at 30°C.

*In case of using a casting machine, contact our technical service

THERMAL AND SPECIFIC PROPERTIES ⁽¹⁾

| | | | |
|---|------------------|----------------------------------|-----------|
| Working temperature | - | °C | -40 / +80 |
| Glass transition temperature (T _g) | ISO 11359 : 1999 | °C | -0.5 |
| Coefficient of thermal expansion (CTE) [+30 to +70]°C | ISO 11359 : 1999 | 10 ⁻⁶ K ⁻¹ | 243 |
| Water absorption (23°C – 24 Hours) | ISO 62 :1999 | % | 1.0 |
| Refractive index | LNE | - | 1.49 |
| Transparence index | LNE | % | 92 |
| Directive 2011/65/EU (ROHS) ⁽²⁾ | - | - | Conforme |

⁽¹⁾ Average values obtained on standard specimens / Hardening 16 hours at 80°C.

⁽²⁾ European directive on the restriction of the use of certain hazardous substances electrical and electronic equipment.

DIELECTRIC AND INSULATING PROPERTIES at 23°C ⁽¹⁾

| | | | |
|-----------------------------------|----------------------|-------|--------------------|
| Dielectric strength (50 Hz- 1 mm) | CEI 60243-1 E2 :1998 | kV/mm | 26 |
| Dielectric constant ε (50 Hz) | CEI 60250 : 1969 | - | 10.5 |
| Dissipation factor tan δ (50 Hz) | CEI6 60250 : 1969 | - | 4.10 ⁻² |
| Volume resistivity (1000 V) | CEI 60093 E2 : 1980 | Ω.cm | 5.10 ¹² |

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Wear gloves, safety glasses and waterproof clothes

For further information, please consult the product safety data sheet.

STORAGE CONDITIONS

Shelf life is 6 months for Polyol and 12 months for Isocyanate in a dry place and in their original unopened containers at a temperature between 15 and 25°C

Any open must be tightly closed under dry inert gas (dry air, nitrogen, etc...).

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications. Page 2/2.