

U23410A +B

Oct. 2018

ELECTRICAL POLYURETHANE RESIN
SOFT – TRANSPARENT

Transparent casting resin for LED inclusions and electronic components.

PROPERTIES:

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

PHYSICAL PROPERTIES				
Composition		U23410 A POLYOL	U23410 B ISOCYANATE	MELANGE
Mix ration by weight		100	100	
Mix ratio by volume (25°C)		100	87	
Aspect		liquid	liquid	liquid
Colour		transparent	transparent	transparent
Viscosity at 25°C (mPa.s)	<i>Brookfield LVT</i>	70	1.200	250
Specific gravity at 23°C	<i>ISO 1675: 1985</i>	1,01	1,15	-
Specific gravity of cured product at 23°C	<i>ISO 2781: 1996</i>	-	-	1,13
Pot life at 25°C on 200g (min)	<i>Brookfield LVT</i>			20
Gel time at 25°C (min)	<i>Gel Timer TECAM</i>			30
Curing time at 25°C (h)				24

MECHANICAL PROPERTIES AT 23°C ⁽¹⁾			
Hardness	<i>ISO 868: 2003</i>	Shore A1	70
Tensile strenght	<i>ISO 37: 2011</i>	MPa	2.5
Elongation at break	<i>ISO 37: 2011</i>	%	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	-	-	-40 / +80
Glass transition temperature (Tg)	ISO 11359 :1999	°C	- 0.5
Coefficient of thermal expansion (CTE) (+30°C à +70°C)	ISO 11359 : 1999	10 ⁻⁶ K ⁻¹	243
Water absorption (23°C – 24h)	ISO 62 : 1999	%	1.0
Refractive index	LNE	-	1.49
Transparent index	LNE	%	92
Directive 201 1/65/EU (ROHS) ⁽²⁾	-	-	Conforme

⁽¹⁾ Average values obtained on standardized 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 (100 Hz)	CEI 60250 :1969	-	10.5
Dissipation factor $\tan \delta$ (100 Hz)	CEI 60250 :1969	-	4.10 ⁻²
Volume resistivity (1.000 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 CONDITION :

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 and recommendations in this publication are to the best of our knowledge reliable. However nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purposes. Statements concerning the use of the products described herein are not to be construed as recommending the infringement of any patent and no liability for infringement arising out of any such use is to be assumed.