RE 12885 POLYOL
RE 1030 ISOCYANATE

ELECTRICAL POLYURETHANE RESIN

RIGID - HIGH THERMAL RESISTANCE

DESCRIPTION

Casting resin for mechanical and numerous electrical applications especially for low or medium voltage. Example: potting, transformers, capacitors and components.

PROPERTIES

- *Two-component liquid polyurethane resin*
- *Rigid*
- *High glass temperature*
- *High thermal resistance*

PHYSICAL PROPERTIES						
Composition				**POLYOL RE 12885**	**ISOCYANATE RE 1030**	**MIXED**
Mix ratio by weight Mix ratio by volume at 25°C				100 100	40 52	
Aspect				liquid	liquid	liquid
Colour	**RE 12885 POLYOL**	**-(12) -(72) -(32) -(92) (94)**		white grey red black	amber	white grey red black
Viscosity at 25°C (mPa.s)			BROOKFIELD LVT	6,000	200	1,900
Specific gravity at 25°C Specific gravity cured product at 23°C			ISO 1675 : 1985 ISO 2781 : 1996	1.57 -	1.22 -	- 1.53
Temps de gel at 25°C on 200 g (min)	**RE 12885 POLYOL**	**(12) (32) (92) (72) (94)**	Gel Timer TECAM			13 13 30
Curing time at 25°C (200 g)			Hour			12 - 24
Final hardness at 25°C (200 g)			Day			7

MECHANICAL PROPERTIES at 23°C (1)			
Hardness	ISO 868 : 2003	Shore D1 / D15	88 / 87
Tensile strength	ISO 527 : 1993	MPa	57
Elongation at break	ISO 527 : 1993	%	3
Flexural modulus	ISO 178 : 2010	MPa	4,400
Impact strength	ISO 179/1eU :1993	kJ/m²	11

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

PROCESSING

Settling may be observed on the polyol. In that case, it is necessary to mix the POLYOL part until both colour and aspect become homogeneous. This is not harmful for the product quality. Both parts (POLYOL and ISOCYANATE) have to be mixed at a temperature higher than 18°C according to the mix ratio indicated on the technical data sheet. Before casting check that parts or moulds are free of any trace of moisture.

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THERMAL AND SPECIFIC PROPERTIES (1)			
Working temperature	-	°C	-40 / +150
Thermal conductivity	ISO 2582 : 1978	W/m.K	0.42
Glass transition temperature (Tg)	ISO 11359 : 1999	°C	90
Coefficient of thermal expansion (CTE) [-25 to +80]°C [+95 to +130]°C	ISO 11359 : 1999	10^{-6} K^{-1}	50 140
Water absorption (23°C – 24 Hours)	ISO 62 : 1999	%	0.18
Directive 2011/65/EU (ROHS) (2)	-	-	conform

(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	25
Dielectric constant ε (100 Hz)	CEI 60250 : 1969	-	4.1
Dissipation factor tan δ (100 Hz)	CEI6 60250 : 1969	-	5.10^{-3}
Volume resistivity (1000 V)	CEI 60093 E2 : 1980	Ω.cm	1.10^{16}

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :
- *Ensure good ventilation.*
- *Wear gloves, glasses and protective clothes.*

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

STORAGE CONDITIONS

Shelf life is 12 months for the POLYOL and 12 months for ISOCYANATE in a dry place and in their original unopened containers at a temperature between 15 to 25°C.
Any open can 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

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