

DESCRIPTION

Casting resin for mechanical and numerous electrical applications especially for low or medium voltage when requiring an extinguishing characteristic.

Example: capacitors, coils, transformers, protection electrical motor

PROPERTIES

- Rigid
- Long pot life
- High thermal resistance
- Self extinguish UL 94 V0 6 mm
- Chemical resistance

PHYSICAL PROPERTIES

Composition		RESIN RE 22891	HARDENER RE 2030	MIXED
Mix ratio by weight		100	12	
Mix ratio by volume at 25°C		100	19	
Aspect		liquid	liquid	liquid
Colour		black	amber	Black
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	6,700	280	3,000
Specific at 25°C	ISO 1675 : 1985	1.58	1.03	-
Specific gravity cured product at 23°C	ISO 2781 : 1996	-	-	1.49
Gel Time at 25°C on 200 g (min)	Gel Timer TECAM			200
Gel time at 60°C on 112 g (min)	Trombomat			40
Curing time at 25°C (200g)	Hours			12-24
Final hardness at 25°C (200g)	Days			7

MECHANICAL PROPERTIES at 23°C ⁽¹⁾

Hardness	ISO 868 : 2003	Shore D1 / D15	88 / 86
Tensile strength	ISO 527 : 1993	MPa	40
Elongation at break	ISO 527 : 1993	%	1.8
Flexural modulus	ISO 178 : 2001	MPa	5.000
Compressive strength at yield	ISO 604 : 2002	MPa	80
CHARPY Impact	ISO 179: 2010	kJ/m ²	7
Initial hardness at 25°C (50 Shore D)	ISO 868 : 2003	hr	10
Initial hardness at 25°C (>80 Shore D)		hr	20

PROCESSING

Settling may be observed on the RESIN. In that case, it is necessary to mix the RESIN part until both colour and aspect become homogeneous. This is not harmful for the product quality.

Both parts (RESIN and HARDENER) 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.

THERMAL AND SPECIFIC PROPERTIES (1)			
Working temperature	-	°C	-40 / +150
Maximun working temperature	-	°C	+160
Thermal conductivity	EN 993-15	W/m.K	0.65
Glass transition temperature (Tg)	ISO 11359 : 1999	°C	+ 65
Coefficient of thermal expansion (CTE) [+20 to +50]°C [+90 to +130]°C	ISO 11359 : 1999	10 ⁻⁶ K ⁻¹	60
			130
Auto-extinguishing	UL94 : 1979	6 mm	V0 (3)
Water absorption (23°C – 24 Hours)	ISO 62 : 1999	%	0.1
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.

(3) UL file number E113398.

DIELECTRIC AND INSULATING PROPERTIES at 23°C (1)			
Dielectric strength (50 Hz - 1 mm)	CEI 60243-1 E2 : 1998	kV/mm	27
Dielectric constant ε (100 Hz)	CEI 60250 : 1969	-	4.0
Dissipation factor tan δ (100 Hz)	CEI 60250 : 1969	-	0.04
Volume resistivity (1000 V)	CEI 60093 E2 : 1980	Ω.cm	5.10 ¹⁵

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 both part 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