

DESCRIPTION

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

PROPERTIES

- 2-component liquid epoxy resin
- Solvent free
- Rigid
- Cold curing
- Very good thermal resistance
- Good immersion behaviour
- Good fire behaviour
- Halogen free

PHYSICAL PROPERTIES				
Composition		RESIN RE 22891(98)	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 gravity at 25°C (g/cm ³)	ISO 1675 : 1988	1.58	1.03	1.49
Gel Time at 25°C on 200g	Gel Timer TECAM			200
Gel Time at 60°C on 112 g (min)				40
Curing time at 25°C (200gr)	Hours			24
Final hardness at 25°C (200gr)	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
Flexural strength	ISO 178 : 2001	MPa	65
Compressive strength at yield	ISO 604 : 2002	MPa	80
Initial hardness at 25°C (50 Shore D)	ISO 868 : 2003	hr	10
Final hardness at 25°C (>80 Shore D)		hr	20
Impact strength (CHARPY) Unnotched specimens	ISO 179/1eU : 1994	kJ/m ²	7

(1): Average values obtained on standard specimens / Hardening 16 hours at 100 °C.

PROCESSING

Before use it is necessary to mix the part B (resin) until both colour and aspect become homogeneous. 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	-	-	-40 / +150
Thermal conductivity	ISO 2582 :1978	W/m.K	0,5
Glass transition temperature (Tg)	ISO 11359 : 2002	°C	65
Coefficient of thermal expansion (CTE) (+20 °C à +50 °C) (+90 °C à +130 °C)	ISO 11359 : 1999	10 ⁻⁶ K ⁻¹	60 130
Self-extinguishing	UL 94 : 1979	6 mm	V0 UL E113398
Water absorption (23 °C – 24 Hours)	ISO 62 :1999	%	0,1
Directive 2011/65/EU (ROHS) ⁽²⁾	-	-	conform

(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	27
Dielectric constant ε (100 Hz)	CEI 60250 : 1969	-	4
Dissipation factor tan δ (100 Hz)	CEI6 60250 : 1969	-	4.10 ⁻²
Volume resistivity (1000 V)	CEI 60093 E2 : 1980	Ω.cm	5.10 ¹⁵

(1): Average values obtained on standard specimens / Hardening 16 hours at 100 °C.

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 CONDITONS

Shelf life is 12 months for resin and 12 months for hardener 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 nitrogen.

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.