

ET 183A V0 - ISO 17022 B

Self-extinguishing PU for potting & encapsulation

Characteristics and applications :

Two-component polyurethane system, soft, self-extinguishing V0 (thickness ≥ 6 mm) homologated in accordance with UL 94 standard available in black (standard version) or others (contact us). Particularly suitable for moulding and encapsulating electronic or electrotechnic materials when the application requires an excellent fire resistance, with good behaviour against thermal shocks, a low stress on components and good heat evacuation. Halogen-free, non-magnetic and RoHS compliant.

Processing :

Mix thoroughly ET 183A V0 resin for each use before mixing to ISO 17022 B. Weighing & mixing can be done manually or by using a two-component dispensing machine. Materials and pieces should be dry and exempt of dust. Moulds and pieces could be heated if necessary.

	ET 183A V0 / ISO 17022 B
Mixing ratio by weight	100 / 16
Mixing ratio by volume	100 / 20
Brookfield mix viscosity at 23°C (mPa.s)	3500 \pm 500
Potlife at 23°C on 70mL mix ~4cm thickness (min)	80 \pm 20 (standard version) 30 \pm 8 (medium version - MED) 13 \pm 3 (accelerated version - ACC)

The release time may vary depending on the shape, thickness and processing temperature. To avoid air entrapments, it is recommended to degas the mix under vacuum for about 2 to 3 minutes before casting.

Properties :

At delivery state

	ET 183A V0	ISO 17022 B
Aspect	Filled liquid (black or other)	Brown liquid
Brookfield viscosity at 23°C (mPa.s)	7 000 \pm 1 500	200 \pm 50
Density at 23°C	1.55 \pm 0.05	1.19 \pm 0.05

Properties :

After polymerization :

ET 183A V0 / ISO 17022 B	
Aspect	Solid (black or other)
Density at 23°C	1.50 ± 0.05
Shore A / D Hardness	83 ± 5 / 25 ± 5
Glass transition temperature : T_G*	-15°C
Coefficient of linear expansion before T_G (10⁻⁶.K⁻¹)*	54.2
Coefficient of linear expansion after T_G (10⁻⁶.K⁻¹)*	162.6
Linear shrinkage (%)	< 0.8
Thermal range of use (°C)	-55 to +130
Dielectric strength (kV/mm)	21
Dissipation factor at 25°C under 100kHz	0.02
Dielectric constant at 25°C under 100kHz	4.30
Resistance against water, acids and bases	OK for water & acids, passable for bases
Water absorption after 24h at 25°C (%)	0.21
Water absorption after 1/2h at 100°C (%)	0.38
Autoextinguibilité referring to UL	E229629

* measured by TMA

Conservation & Storage :

Shelf life is 12 months for ET 183A V0 resin & ISO 17022 B hardener in their original packaging away from moisture between +5°C and +40°C.

For optimal storage conditions, be sure to carefully close products after use and keep under inert gas blanketing : dry air for ET 183A V0 and nitrogen for ISO 17022 B.

Nota : The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.