

Technical Information

Polimal® VE-11 M

DATE: 20.09.2023

Polimal® VE-11 M

This is an unaccelerated, flame retardant, brominated bisphenol-A epoxy based vinyl ester resin.

APPLICATION

Polimal® VE-11 M is designed for production glass fiber reinforced compositions and/or mineral fillers with high chemical and thermal resistance.

PACKAGING

220 kg, 1100 kg

SHELF LIFE

3 months from the date of manufacture.

PROCESSING CONDITIONS

The resin should be mixed before use. Good curing requires ambient temperature above 18°C and low air humidity. The curing system under productions conditions should be tested.

In order providing optimal mechanical and resistance parameters is recommended to use glass veil with a grammage of 30g/m² made of C-glass as first laminate layer and post-curing at elevated temperature e.g. couple hours at 80°C. Post-curing is especially recommended if parts are intended for contact with chemicals.

STORAGE

Polimal® VE-11 M should be stored in closed packaging in a dry, cool place, protected from sunlight and suitable for storage of flammable materials at temperatures not exceeding 25°C.

SPECIFICATION

Parameter	Unit	Value
Viscosity in 25°C acc. to ISO 3219	mPa s	300 ÷ 400
Gel time at 25°C acc. to ISO 2535	min	15 ÷ 30
Flexural strenght acc. to ISO 178	MPa	130
Tensile strength acc. to ISO 527	MPa	80
Tensile modulus acc. to ISO 527	MPa	3600
Elongation at break acc. to ISO 527	%	3,5
Heat deflection temperature (HDT) acc. to ISO 75	°C	90
Barcol hardness acc. to ASTM D 2583	°B	40

Gel time with 1% Co1% + 2% Luperox® K-12G (MEKP)

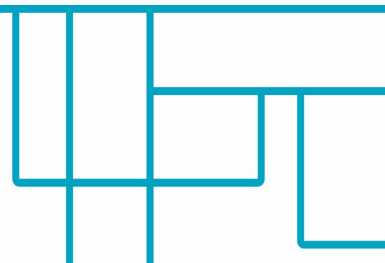
Mechanical parameters refer to unreinforced resin cured for 24 hours at room temperature and post-cured for 4 hours at 80 °C.

Luperox® is the trade name registered for products of **ARKEMA** company.

Polimal® is the trade name reserved for unsaturated polyester resins produced by **Sarzyna Chemical sp. z o.o.**

The data and suggestions contained in this material are based on our own research and considered by us to be reliable. However, we cannot accept any liability for actions and losses resulting directly or indirectly from the use of the products. The user should check the quality, safety and features of the product before applying it.

ATTENTION: This information does not replace the Safety Data Sheet or the Technical Sheet which are master documents available upon request.



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CHEMICAL RESISTANCE TABLE

Assessment of chemical resistance of non-reinforced resin to undermentioned chemicals was carried out under laboratory conditions according to PN-78/C 89067 standard. Test specimens have seasoned for 24 hours at temperature 23°C and the for 4 hours at temperature 80°C.

Chemical	Concentration, %	Temperature, °C
Nitric acid	21-29	40
Nitric acid	70	Not recommended at any temperature
Phosphoric acid	0-85	80
Hydrochloric acid	16-20	90
Hydrochloric acid	37	40
Sulphuric acid	0,5-25	90
Sulphuric acid	51-70	75
Formic acid	25	50
Acetic acid	0-25	90
Acetic acid	26-50	80
Acetic acid	76-85	45
Hydrogen peroxide	0-30	40
Sodium hydroxide	1	65
Sodium hydroxide	5	65
Sodium hydroxide	25	65
Sodium hydroxide	40	65
Sodium hypochlorite	0-18	80
Iron(III)chloride	All	90
Sodium chloride	All	90
Iron(III)sulphate	All	90
Ethyl alcohol	10	50
Ethyl alcohol	50	50
Carbon tetrachloride	100	40
Phenol	100	Not recommended at any temperature
Styrene	100	Not recommended at any temperature
Acetone	100	Not recommended at any temperature
Gasoline unleaded, non-containing methanol	100	50

