MULTITEX COMPOSITES

TECHNICAL DATASHEET

EPOXY RESIN LS280

Description

- **Low viscosity, free of solvents and fillers**
- **Fast impregnation of glass, aramid, and carbon fibres**
- **High static and dynamic strength**

The Epoxy Resin is a bisphenol A/F resin. The bisphenol F component reduces the viscosity and prevents the resin from forming crystals at low storage temperatures (less than +5 °C).

The resin is diluted with a difunctional compound and is generally regarded as having a good physiological tolerance. Owing to its low surface tension the system exhibits good filler absorption properties. And it has **excellent wetting properties with respect to reinforcing fibres** of glass, aramid, and carbon.

Application

Fibre composites (GFRP, SFRP, CFRP) in (**ultralight) aircraft construction, model construction, design of sports equipment, mould construction** and **motor sports.**

Processing

The resin is **suitable for all processing methods**, e.g. hand lay-up operations, winding, casting, and press moulding (also in vacuum). Metal, wood, plastics, ceramics, etc., can be joined with high-strength bonds without the application of contact pressure. Curing takes place virtually free of shrinkage.

The **hardeners** are formulations of aliphatic and cycloaliphatic amines. They define the properties of the moulded materials.

Epoxy Resin	Unit	Value
Delivered state	-	liquid
Colour	-	yellowish
Density	g/cm³/23 °C	1.14 ± 0.01
Viscosity	mPa*s/25 °C	710 ± 70
Epoxy value	100/equivalent	0.56
Epoxy equivalent	g/equivalent	179
Chlorine content total	%	< 1
Chlorine content hydrolysable	ppm	< 500
Vapour pressure	mbar/ 25 °C	< 1
Refractive index	n_D 25	1.547
Flash point (ISO 3679)	°C	>150
Storage (sealed, at 15 °C)	months	36

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HARDENER LS280

Hardeners for Epoxy Resin
The hardeners exhibit different processing times so that you can select the one best suited to your needs:

Hardener (15 min)

Description

- **Hardener for Epoxy Resin**
- **Processing time 15 minutes**
- **Free of nonylphenol, benzyl alcohol and DETA**
- **Curing temperatures from 5 °C**

Application
Modified cycloaliphatic polyamine hardener for small laminates, glued joints, and repairs.
Good static and dynamic strength. Fast curing in the thinnest layers as well.

Owing to the high reactivity and the resulting reaction heat, laminates may not be manufactured with a thickness exceeding 5 mm in one working cycle.

Material characteristics (pure resin cured) Epoxy Resin with Hardener:

Flexural strength DIN EN ISO 178 in MPa	110
Tensile strength DIN EN ISO 527 in MPa	68
Compressive strength DIN EN ISO 14126 in MPa	116
Initial viscosity ISO 3219 in mPas	880