BECKOPOX™ EP 151

Technical Datasheet

TYPE

A-liquid epoxy resin; flexibilized

FORM OF DELIVERY (f.o.d.)

100 %

SPECIAL PROPERTIES AND USE

Internally flexibilized liquid resin, high-viscous. Compounding resin for elastification of unmodified epoxy resins. Coatings, adhesives, casting compounds.

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219		
dynamic viscosity cylinder system (25 1/s; 23 °C)	[mPa.s]	25000 - 38000
Epoxy-Equivalent VLN 305		
epoxy equivalent (form of delivery; 1,2-propylene carbonat/glac.ac.acid 4:1; 0,4 - 0,6)	[g/mol]	400 - 500
Iodine Colour Number DIN 6162		
iodine colour number		<= 5

Not continually determined:

Dynamic Viscosity DIN EN ISO 3219		
dynamic viscosity cylinder system (25 1/s; 25 °C)	[mPa.s]	20000 - 30000
Density (Liquids) DIN EN ISO 2811-2		
density approx. (20 °C)	[g/cm³]	1,08
Flash Point (Pensky-Martens) DIN EN ISO 2719		
flash point	[°C]	> 100

DILUTABILITY

special white spirit 100/140	○	methoxypropyl acetate	●
xylene	●	methoxypropanol	●
acetone	●	ethanol	⊙
methyl ethyl ketone	●	butanol	○
methyl isobutyl ketone	●	isopropanol	○

● = unlimited dilutability
⊙ = limited dilutability
◉ = substantial dilutability
○ = very limited or no dilutability

COMPATIBILITY

% Beckopox EP 151	90	75	50	25	10
% other binder	10	25	50	75	90
Epoxy resin					
Beckopox EP 075	●	●	●	●	●
Beckopox EP 116, EP 117, EP 128	●	●	●	●	●
Beckopox EP 140, EP 147w	●	●	●	●	●
Epoxy type 1, 4, 7, 9	●	●	●	●	●
Other binders					
dibutyl phthalate	●	●	●	●	●
Resamin HF 480	●	●	●	●	●
Novares LA 700	●	●	●	●	●

● = definite compatibility
○ = very limited or no compatibility

SUGGESTED USES AND PROCESSING

Beckopox EP 151 is a solvent-free liquid epoxy resin with high viscosity. It is mainly used as plastisizing resin to improve the flexibility of epoxy resin systems even at low temperatures and without loosing the flexibility on ageing. Being compatible with other Beckopox grades the necessary flexibility can be adjusted by varying the mixing ratio. Hence it is suitable for castings needing permanent elasticity as well as castings subjected to severe vibration stresses such as ship decks and non-slip stairs. Such castings exhibit high impact resistance and exceptional performance in the cold-check cycle test.

As sole binder or in combination with other liquid resins Beckopox EP 151 is used for formulating casting compounds in the electrical industry. Especially for embedding temperature sensitive elements and components.

The resin/curing agent mixture generates little heat during cure so that it is also an effective base resin for formulating trowelling, casting and sealing systems.
Epoxy adhesives are given extra elasticity by adding Beckopox EP 151. It is also frequently used as sole binder for adhesives.

Beckopox EP 151 can be formulated with the standard pigments and extenders. It can be cured using acid anhydrides at elevated temperature or with amines at room temperature. For curing at low temperatures, it is recommended to lower the viscosity by combining with low viscous liquid resins.

In view of its very high flexibility a combination with other liquid resins, e. g. Beckopox EP 128 or Beckopox EP 140 will usually adjust the flexibility to the appropriate level.
The presence of Beckopox EP 151 reduces the exothermy during the curing-process.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 365 days.

DISTINGUISHING FEATURES

Beckopox EP 151 is preferably used for elastification of unmodified epoxy resins, in special cases as a sole-binder for highly elastic compounds.

SAFETY AT WORK AND ENVIRONMENTAL PROTECTION

When handling and processing epoxy resins and hardeners, the rules and regulations established by local authorities should be observed. A Material Safety Data Sheet is available on request.

Producer:
Novares LA 700 (Rütgers Germany GmbH)