

TYPE

Solid epoxy resin; flexibilized; dispersion in water

FORM OF DELIVERY (f.o.d.)

56 % in water (56WA)
(containing also approx. 2.5 % isopropanol)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (150 1/s; 23 °C)	[mPa.s]	450 - 1100
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Epoxy-Equivalent VLN 305

epoxy equivalent (form of delivery)	[g/mol]	850 - 930
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Epoxy-Equivalent VLN 305

epoxy equivalent (non volatile matter)	[g/mol]	480 - 520
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Non-Volatile Matter DIN 55671

non-volatile matter (125 °C; 10 min; 0,6 g)	[%]	54 - 58
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Not continually determined:

Colour / Appearance VLN 250

colour		whitish
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Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	54 - 58
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Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm ³]	1,09
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Flash Point DIN EN ISO 1523

flash point	[°C]	> 65
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SPECIAL PROPERTIES

Internally flexibilized solid resin-Type 1-dispersion, e. g. for water reducible fast drying anticorrosion primers and coatings for plastics.
Addition of Beckopox EP 147w increases hardness and chemical resistance.

SUGGESTED USES AND PROCESSING

Beckopox EP 385w is an internally plasticized type 1 solid epoxy resin as aqueous dispersion.

Formulated together with adequate curing agents such as Beckopox EH 613w, EH 623w or VEH 2849w it is suited for corrosion protection primers with very good adhesion to most metallic substrates. It is also suitable for use in single coat and decorative systems for metallic substrates. For optimum corrosion protection it is recommended using 80 % of the stoichiometric curing agent quantity. Formulations based on Beckopox EP 385w also have good adhesion to various plastics such as PC, PA, PUR and UP-laminates.

Pigments and extenders should be dispersed in the curing agent component since Beckopox EP 385w does not possess sufficient shear stability. The formulated paint stability can be influenced by the additives used so that it is important to investigate their suitability thoroughly; such additives should not contain functional groups capable of reacting with epoxy groups.

To improve the adhesion and penetration to porous substrates it is recommended using it together with Beckopox EP 147w.

MIXING RATIO AND POT LIFE

A blend of

100.0 g Beckopox EP 385w/56WA
16.3 g Beckopox EH 613w/80WA
13.7 g deionized water

has a pot life at 23 °C of approx. 90 minutes. The termination point cannot be observed through viscosity increase or gelation, it is therefore necessary to use the material within the stated time limit. The substrate temperature should not be below 12 °C and the relative humidity not above 80 %.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 270 days.

It is important to protect Beckopox EP 385w from frost and direct sunshine; at low temperatures it has therefore to be stored under frostproof conditions.

As a result of the high solids content of the product and the solid resin character of the polymer, the product tends to form a tiny skin upon foaming and temperature changes during storage. Therefore filtration of the product (without heating) before applied by the end-user is recommended.

Lowest storage temperature: 5 °C

DISTINGUISHING FEATURES

In comparison with Beckpox EP 384w the internally plasticized Beckopox EP 385w possesses a much better prolonged flexibility and better wet film adhesion; it is therefore preferred for metallic substrates and certain plastics.

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.