

Technical Datasheet

TYPE

Solid epoxy resin; dispersion in water

Lowest storage temperature: 5 °C

FORM OF DELIVERY (f.o.d.)

53 % in water / methoxypropanol (53WAMP)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity [mPa.s] 400 - 750
cylinder system
(100 1/s; 23 °C)

Epoxy Equivalent DIN 53188

epoxy equivalent [g/mol] 920 - 1040
(f.o.d.)

Epoxy Equivalent DIN 53188

epoxy equivalent [g/mol] 490 - 550
(solids)

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter [%] 51 - 55
(1 h; 125 °C; 1 g)

Not continually determined:

Colour / Appearance VLN 250

colour whitish

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity [mPa.s] 350 - 650
cylinder system
(100 1/s; 25 °C)

Particle Size (PCS) ISO 13321

particle size [nm] < 1000

Density (Liquids) DIN EN ISO 2811-2

density [g/cm³] 1,10
approx.
(20 °C)

Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point [°C] > 100

SPECIAL PROPERTIES

Solid resin-Type 1-dispersion, even in combination with water-emulsifiable liquid resins for fast drying coatings, preferably for mineral substrates.

SUGGESTED USES AND PROCESSING

Beckopox EP 384w is a type 1 solid epoxy resin as aqueous dispersion. Formulated together with suitable curing agents such as Beckopox EH 623w, EH 659w or VEH 2177w it results in rapid drying coating systems for mineral substrates. The rapid drying property makes it possible to apply more coats within one working day.

Dispersing of pigments and extenders is carried out often in the hardener component. Easy dispersible mill bases can be ground by a dissolver in Beckopox EP 384w too. The formulated paint stability can be influenced by the additives used so that it is important to investigate 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 to combine with Beckopox EP 147w or EP 122w, which also results in being able to increase solids content.

MIXING RATIO AND POT LIFE

A blend of

100.0 g Beckopox EP 384w/53WAMP
20.4 g Beckopox EH 623w/80WA
9.6 g deionized water

has a pot life at 23 °C of approx. 3 hours. 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

It is important to protect Beckopox EP 384w from frost; at low temperatures it has therefore to be stored under frostproof conditions.

At temperatures up to 25 °C storage stability Beckopox EP 384w packed in original containers amounts to at least 6 months.

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.

DISTINGUISHING FEATURES

Beckopox EP 384w based systems give faster curing and harder films than with Beckopox EP 385w, it is therefore better suited for rigid mineral substrates.

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.

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