

TYPE

Air-drying and stoving epoxy resin ester

FORM OF DELIVERY (f.o.d.)

60 % in xylene (60X)

SPECIAL PROPERTIES AND USE

Superior adhesion and flexibility.
Excellent resistance to temperature, water and alkali.
Radiant gloss.

Anticorrosive paint systems and primers.

RESIN COMPOSITION

(approx.)

42 % drying vegetable fatty acids (as triglycerides)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity [mPa.s] 3300 - 4700
 (25 1/s; 23 °C)

Iodine Colour Number DIN 6162

iodine colour number <= 8
 50 % xylene

Acid Value DIN EN ISO 2114

acid value [mg KOH/g] < 2
 (non volatile matter)

Non-Volatile Matter DIN 55671

non-volatile matter [%] 58 - 62
 (120 °C; 5 min)

Not continually determined:

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter [%] 58 - 62
 (1 h; 125 °C; 1 g; toluene)

Density (Liquids) DIN EN ISO 2811-2

density [g/cm³] 0,98
 approx.
 (20 °C)

Flash Point DIN EN ISO 1523

flash point [°C] 26
 approx.

DILUTABILITY

white spirit	○	ethyl acetate	●
turpentine oil	●	butyl acetate	●
xylene	●	methoxypropyl acetate	●
solvent naphtha 180/210	●	methoxypropanol	●
methyl ethyl ketone	●	ethanol	○
methyl isobutyl ketone	●	butanol	○

● = unlimited dilutability
 ○ = substantial dilutability

⊙ = limited dilutability
 ○ = very limited or no dilutability

COMPATIBILITY

	90	75	50	25	10
% Duroxyn EF 932	90	75	50	25	10
% other binder	10	25	50	75	90

Epoxy resin esters

Duroxyn EF 900 ● ● ● ● ●

Other binders

nitrocellulose 24 E ○ ○ ○ ○ ○

● = definite compatibility

○ = very limited or no compatibility

SUGGESTED USES

Duroxyn EF 932 can be used as sole binder for air-drying and stoving paints or in conjunction with amino resins, for stoving primers and finishes.

Air-drying paints

Paints on Duroxyn EF 932 are tack-free within short time and have good through drying in normal film thickness. The films show good flexibility combined with excellent hardness and excellent adhesion, also to non-ferrous metals. Further advantages are resistance to water and diluted alkali. Duroxyn EF 932 is therefore excellently suited for paints, resistant to tropical climate, interior paints, zinc dust paints and primer-surfacers.

In primers based on Vialkyd AM 380 an addition of approx. 20 % Duroxyn EF 932 improves adhesion to metals.

Stoving paints

Duroxyn EF 932 can be used in the formulation of high quality stoving paints, either alone or in conjunction with low levels of amino resins, preferably melamine resins. The films afford top performance in terms of flexibility, hardness, impact resistance, adhesion to steel and non-ferrous metals, radiant brilliance, high build and resistance to water and alkali. Such paints give primers and finishes which are resistant to tropical climate, or primers and fillers for e.g. the vehicle industry with resistance to water and corrosion. The excellent adhesion and mechanical properties afford impact resistant enamels, e.g. primer surfacers.

PROCESSING

Duroxyn EF 932 has a very good pigment wetting capacity and is compatible with normal pigments, including reactive pigments. 0.03 - 0.05 % cobalt (metal on solid resin) is a suitable drier, while lead or zirconium siccatives can be coemployed. Antiskinning agents like Additol XL 297 and drying regulators like Additol XL 109 are recommended. The total film thickness, particularly of several coats should not exceed 30 µm, since through drying is retarded in such cases. Traces of moisture in pigments or solvents may cause defects in gloss and levelling. Levelling aids are high boiling aromatic hydrocarbons, esters or glycol ethers. The paints are applied by spraying or brushing.

Stoving paints are formulated in conjunction with Maprenal MF 650 or Maprenal MF 800, with a stoving schedule of 30 min 130 - 160 °C. Up to this temperature, discolouration will not occur. The hydroxyl value of Duroxyn EF 932 (calculated on solid resin) is approx. 80, representing a hydroxyl content of approx. 2.4 %.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 730 days.

DISTINGUISHING FEATURES

Duroxyn EF 932 shows somewhat less surface hardness than Duroxyn EF 900, the other film properties are similar.