

Resydrol® AX 6622w/66BPMP

PRELIMINARY PRODUCT INFORMATION

TYPE

Epoxy resin-modified non-drying alkyd resin, after neutralization with amines water-thinnable

FORM OF DELIVERY (f.o.d.)

66 % in n-butoxypropanol (66BPMP), partially neutralized (containing also approx. 11 % methoxypropanol)

DEVELOPMENT PRODUCT

This product is serving for trial purposes only. Deviations which might occur during transfer into manufacturing in a commercial scale are possible and do not constitute any material defect.

Neutralization agent

ca. 1.1 % N,N-dimethylethanolamine, as salt

CONTENT OF FATTY ACIDS

approx. 22 % vegetable fatty acids (as triglycerides)

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219 dynamic viscosity (10 1/s; 23 °C)	[mPa.s]	12000 - 20000
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Acid Value DIN EN ISO 2114 acid value (solids)	[mg KOH/g]	35 - 65
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Non-Volatile Matter DIN EN ISO 3251 non-volatile matter (1 h; 125 °C; 1 g; EAC)	[%]	64 - 68
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Not continually determined:

Colour / Appearance VLN 250 colour appearance		brown cl-lightcloudy
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Non-Volatile Matter DIN 55671 non-volatile matter (90 °C; 10 min; 1 g)	[%]	64 - 68
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Density (Liquids) DIN EN ISO 2811-2 density approx. (20 °C)	[g/cm³]	1,08
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Flash Point (CCCFP) ASTM D 6450 flash point approx.	[°C]	53
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SPECIAL PROPERTIES

Excellent pigment wetting. Outstanding anticorrosive properties. High reactivity, very good storage stability.

Used for waterborne corrosion-resistant dipping and spray primers for low stoving temperatures. High-grade waterborne single-coat finishes for industrial applications.

SUGGESTED USES

For achieving film formation, Resydrol AX 6622w has to be combined with water-compatible melamine resins. Although the resin itself has a high degree of reactivity, its curing temperature naturally also depends on the reactivity of the partner resin. In combination with reactive melamine resins cross-linking will occur after 20 minutes at a temperature of 120 °C.

Paint coats on the basis of Resydrol AX 6622w are remarkable for their high degree of corrosion resistance, which can also be obtained without anticorrosive pigments. As Resydrol AX 6622w only has a very low tendency to yellowing under the influence of heat, it can be employed for light one-coat finishes applied by dipping or spraying, which are characterized by excellent film stability and resistance to water, petrol and mineral oils. Resydrol AX 6622ww shows good adhesion to all metallic substrates, especially to aluminium and galvanized zinc ground.

DILUTABILITY

After neutralization with organic nitrogen bases such as dimethylethanolamine or triethylamine, Resydrol AX 6622w can be diluted with water in the pH range from 7.3 to 8.5.

It should be noted that 25 % of the acid value have already been neutralized by dimethylethanolamine. Resydrol AX 6622w can also be diluted to any desired extent with water-miscible solvents such as glycol ethers and low alcohols. Simultaneous use of small amounts of solvents which are not miscible with water has to be carefully tested.

COMPATIBILITY

combinations, e. g. with acrylic resins or oil-free polyester types, are also possible but require testing of compatibility in every individual case.

PROCESSING

Curing with amino resins

Favourable conditions for combination with all suitable melamine resins are in the range of 90 : 10 to 75 : 25 (referred to 100 % of resins).

Adjustment of pH value

Adjustment of the required pH value is best done with dimethylethanolamine or also with triethylamine. In some cases, simultaneous employment of amines of low volatility, e. g. triethanolamine, may be necessary, as high reactivity of the resin might cause wrinkling of the surface.

Pigmentation

Resydrol AX 6622w has very good pigment wetting properties and can be processed with all pigments and fillers suitable for water-soluble systems. Active anticorrosive pigments, may also be used but in most cases are not necessary on account of the high corrosion-protection effect of Resydrol AX 6622w.

Beside current fillers such as barium sulfate, micro talcum, aluminium silicate etc., also aluminium oxide hydrates (e. g. Martinal OL) lend themselves very well for this use. Dispersion is possible on all current aggregates and is best performed in neutralized form. In addition to organic auxiliary solvents, a certain amount of deionized water should always be used for adjustment of viscosity of the paste.

Paints and primers on the basis of Resydrol AX 6622w show very good storage stability if the recommend pH range is carefully observed.

Dilution

Simultaneous application of solvents improves thinning and flow properties of Resydrol AX 6622w Tap water of not too high hardness can be used for thinning.

Application

The processing viscosity of dipping paints is in the range of 90 - 170 mPa.s, that of spray paints in the range of 120 - 220 mPa.s, DIN EN ISO 3219, 23 °C, cone-and-plate apparatus, shear rate: 25 s⁻¹. Addition of appropriate defoaming and wetting agents is recommended.

STORAGE

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

REMARK:

Data contained in this publication are based on careful investigations (and are intended for information only). Due to scale up of this product there is not yet sufficient experience concerning serial production. We can therefore not exclude, that based on future knowledge product data and other indicated properties in upcoming Technical Data Sheets will be subject to change. We reserve the right to leave the product name unchanged, even if product data or other indicated properties will vary from the present product info. Regardless of the data contained in this publication any user is obliged to carry out tests under his own responsibility as to the suitability of the product for a particular use and to investigate the possible violation of industrial property rights of third parties. Information is therefore not binding and cannot be construed as guaranteeing specific properties of products. We apply our General Sales Conditions.

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