

RESYDROL[®] AX 906w/35WA

TYPE

Water-diluted, epoxy resin-modified aktyd resin

Neutralization agent

1.2 % N,N-dimethylethanolamine, as salt

FORM OF DELIVERY (f.o.d.)

 35 % in water (35WA)
 (containing also 3 % methoxypropoxy propanol)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219 dynamic viscosity (25 1/s; 23 °C)	[mPa.s]	3000 - 10000
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pH-Value DIN ISO 976 pH-value (10 %)		7,0 - 9,0
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Non-Volatile Matter DIN EN ISO 3251 non-volatile matter (1 h; 125 °C; 1 g)	[%]	34 - 37
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Not continually determined:

Colour / Appearance VLN 250 colour appearance		yellow opaque
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Non-Volatile Matter DIN 55671 non-volatile matter (120 °C; 5 min)	[%]	34 - 37
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Density (Liquids) DIN EN ISO 2811-2 density approx. (20 °C)	[g/cm ³]	1,06
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Flash Point (Pensky-Martens) DIN EN ISO 2719 flash point	[°C]	> 100
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DIFFERENT FORMS OF DELIVERY

The forms of delivery of Resydrol AX 906w differ in their content of auxiliary solvents. Resydrol AX 906w/35WA contains approx. 3 % of organic solvent, Resydrol AX 906w/55WALG approx. 18 % (referred to form of delivery).

Consequently, Resydrol AX 906w/35WA has to be used for paints in which a co-solvent content of about 5 % must not be exceeded; if the respective limit is higher, it is also possible to employ Resydrol AX 906w/55WALG.

SPECIAL PROPERTIES

Outstanding anticorrosive properties, excellent pigment wetting, high reactivity, very good storage stability.

Single coat stoving for waterborne corrosion-resistant dipping and spray primers and high-grade single-coat finishes for industrial applications. Light colours also available.

SUGGESTED USES

For achieving film formation Resydrol AX 906w has to be combined with water-compatible amino resins. Although the resin itself has a high degree of reactivity, its optimum setting temperature naturally also depends on reactivity of the partner resin but limits the combination with high reactive crosslinker in order to obtain stability without potlife.

Crosslinking with Cymel 303 LF is possible after 20 minutes at a temperature of 120 - 130 °C. The hardened films thus obtained are characterized by good hardness and very high flexibility. Adhesion on all metallic substrates is excellent, especially on aluminium and galvanized substrates.

Films of Resydrol AX 906w show excellent resistance to water, petrol and mineral oils. At current hardening temperatures, Resydrol AX 906w is practically free from yellowing due to heat.

The high corrosion resistance of paint coats based on Resydrol AX 906w, which can be obtained without using chromates, is also worth mentioning.

COMPATIBILITY

Resydrol AX 906w is fully compatible with Resydrol AX 246w and water-thinnable melamine resin types such as Cymel 303 LF.

Further 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 amino resins are in the range of 90 : 10 to 75 : 25 (referred to 100 % of resins).

Adjustment of pH and viscosity value

Dimethylethanolamine should be used for corrections of pH-value and viscosity if necessary. In some cases, simultaneous employment of amines of low volatility, e. g. triethanolamine, may be of advantage, as high reactivity of the resin might cause wrinkling.

Pigmentation

Resydrol AX 906w has very good pigment wetting properties and can be processed with all pigments and fillers suitable for water-soluble systems.

Active anticorrosive pigments, e.g. lead silico-chromate and strontium chromate may also be used, but in most cases they are not necessary on account of the high corrosion-protection effect of Resydrol AX 906w. Of phosphate pigments, chromium phosphate is very well suited. 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 aggregates currently used for this purpose.

Paints and primers on the basis of Resydrol AX 906w show very good storage stability if the recommended pH range (preferably 7.0 - 9.0) is carefully observed.

Dilution

Preferably with deionized water. Simultaneous use of solvents (e. g. glycol ether) is possible.

Application

Depending on the type of order, processing viscosity is in the range of 25 - 70 s, DIN EN ISO 2431, 5 mm, 23 °C. Simultaneous use of suitable defoaming and wetting agents is recommended.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 180 days.

Synthetic resins containing water may freeze or get inhomogeneous at temperatures below 0 °C. By this the product will not suffer any damage, but the necessary regeneration requires extended heat treatment at 40 - 50 °C with continuous stirring. It is therefore recommended to ensure frostproof storage of such products.

Lowest storage temperature: - 5 °C

DISTINGUISHING FEATURES

In comparison with Resydrol AX 246w, Resydrol AX 906w requires less auxiliary solvent for processing.

7.0/17.07.2013 (replaces all previous versions)

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