

TYPE

Water dilutable, fatty acid modified alkyd resin in pure water emulsion

Neutralization agent

1,5 % N.N-dimethylethanolamine, as salt

FORM OF DELIVERY (f.o.d.)

35 % in water (35WA)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (10 1/s; 23 °C)	[mPa.s]	200 - 3000
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pH-Value DIN ISO 976

pH-value (10 %)		7,5 - 8,8
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Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	34 - 36
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Not continually determined:

Colour / Appearance VLN 250

colour		light brown
appearance		clear to opaque

Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm ³]	1,03
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Flash Point (Pensky-Martens) DIN EN ISO 2719

flash point	[°C]	> 100
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SPECIAL PROPERTIES

Contains no organic solvent, excellent pigment wetting, excellent application properties.

For high bodied stoving systems in one-coat and decorative finishes.

SUGGESTED USES

For film formation Resydrol AF 502w must be crosslinked with amino resins suitable for aqueous systems. Hexamethoxymethylmelamine resins are recommended. Formulated systems have a medium reactivity; curing can be accelerated using a catalyst. The stoving range is 140 - 160 °C.

Combinations with reactive melamine resins will show decreased storage stability.

The formulated coating can be applied using all conventional spraying methods. The cured films have good gloss and body. Resydrol AF 502w was mainly designed for general industrial coatings for one-coat and decorative finishes. The fatty acid content may lead to yellowing after prolonged exposure to heat.

PROCESSING

Resydrol AF 502w requires melamine resins suited for waterborne systems for curing. Recommended are hexamethoxymethylmelamine resins in ratio 90 : 10 to 75 : 25 on solid resin.

Adjustment to pH value

If adjustment of the pH value is required, this is best done with dimethylethanolamine.

Pigmentation

Resydrol AF 502w has very good pigment wetting properties and can be processed with all pigments and fillers suitable for watersoluble systems. The use of strong basic pigments should be avoided since they tend to gellation. Titanium dioxide grades modified with zinc oxide should not be used. The use of active anticorrosive pigments should first be carefully tested.

For pigment dispersing sand or pearl mills are best suited. The milling temperature should not exceed 50 °C.

Paints on the basis of Resydrol AF 502w show very good storage stability if the recommended pH range (preferably 8.0 - 8.5) is carefully observed.

Dilution

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

COMPATIBILITY

Resydrol AF 502w/35WA is compatible with Resydrol AX 246w as well as with water dilutable melamine resins. The formulation together with fatty acid modified resins appears to be possible. A compatibility check should be made. With decreasing fatty acid content the compatibility is decreasing.

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: - 3 °C

DISTINGUISHING FEATURES

Compared with all other Resydrol stoving grades Resydrol AF 502w has the best processing properties when formulating without organic solvents.