

RESYDROL[®] VAY 6096w/39WA

TYPE

Short-oil, oxidatively drying, acrylic modified alkyd resin as aqueous emulsion

Neutralization agent

0.4 % ammonia, as salt

FORM OF DELIVERY (f.o.d.)

39 % in water (39WA)
(containing also 5.7 % butyl glycol)

Lowest storage temperature: - 5 °C

CONTENT OF FATTY ACIDS

approx. 32 % special vegetable fatty acids (as triglycerides)

SPECIAL PROPERTIES

- very quick drying
- high film hardness
- good gloss in decorative top coats
- high water resistance and outdoor durability

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219 dynamic viscosity (10 1/s; 23 °C)	[mPa.s]	2000 - 8000
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pH-Value DIN ISO 976 pH-value (10 %)		7,0 - 9,0
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Non-Volatile Matter DIN 55671 non-volatile matter (120 °C; 5 min)	[%]	38 - 40
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Not continually determined:

Colour / Appearance VLN 250 colour appearance		brown opaque
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Non-Volatile Matter DIN EN ISO 3251 non-volatile matter (1 h; 125 °C; 1 g)	[%]	38 - 40
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Density (Liquids) DIN EN ISO 2811-2 density (20 °C)	[g/cm ³]	1,04
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Flash Point (Pensky-Martens) DIN EN ISO 2719 flash point	[°C]	> 100
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SUGGESTED USES

Resydrol VAY 6096w/39WA is a sole binder to formulate extremely fast drying industrial coating systems. These systems are suited for spraying and are tackfree within 45 minutes resulting in hard glossy films. Coatings based on Resydrol VAY 6096w/39WA are therefore suited for coating various industrial components such as garden equipment, tools, farming and construction equipment, municipal vehicles, truck chassis, etc.

PROCESSING

The coatings are prepared using a permill. After grinding the pH is adjusted to 8.5 - 9.0 (measured in a 10 % aqueous solution). Then the formulation is adjusted to application viscosity with water. The use of additional organic cosolvents should be avoided, they may affect the formulated paint stability.

Attention should be given to the fact that strong basic pigments may lead to paint gellation so that ZnO coated TiO₂ rutil grades are not recommended for use.

To prevent skin formation the use of 1 - 2 % Additol XL 297 on resin solids is recommended.

An effective defoamer is Additol VXW 4909.

Only water emulsifiable driers are suitable for use. Easy processing with uniform distribution has been observed with Hycure Mix (Siber Hegner, CH - 8034 Zurich) or Octa Solingen Cobalt 7 Aqua (Borchers).

RHEOLOGICAL BEHAVIOUR OF ALKYD RESIN EMULSIONS

Aqueous alkyd resin emulsions differ fundamentally from synthetic resins dissolved and diluted inorganic solvents.

1) Viscosity of aqueous alkyd resin emulsions is independent of the mean molar mass of the resins so that it is not possible to infer from their viscosity to the molecular weight of the resins.

2) Aqueous alkyd resin emulsions are characterized by structural viscosity, which means that with increasing shear stress viscosity will decrease. The values measured are strongly dependent on measuring conditions, and viscosity data without indication of shear rates are not very useful.

3) Viscosity of aqueous alkyd resin emulsions will be influenced by their respective pH value in the following way:
With increasing pH value viscosity will also increase. As during storage of alkyd resin emulsions their pH value will slowly decrease, a decrease of viscosity has also to be expected. By subsequent neutralization viscosity can again be raised to the original value.

4) The dilution curve of aqueous alkyd resin emulsions displays a very steep descent. Any reduction of the solid matter content therefore results in a much stronger reduction of viscosity than with synthetic resins dissolved in organic solvents.

STORAGE

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

DISTINGUISHING FEATURES

Resydrol VAY 6096w/39WA differs from Resydrol AY 466w/38WA in that it has a more rapid drying rate and increased film hardness.

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• Worldwide Contact Info: www.allnex.com •

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