

TYPE

Oxidatively drying acrylic modified alkyd resin as aqueous emulsion

NEUTRALIZATION AGENT

0.5 % ammonia, as salt

FORM OF DELIVERY (f.o.d.)

42 % in water (42WA)

CONTENT OF FATTY ACIDS

approx. 58 % special vegetable fatty acids (as triglycerides)

SPECIAL PROPERTIES AND USE

Resydrol AY 586w/42WA is an alkyd emulsion and does not contain any organic cosolvents.

Sole binder for waterborne decorative paints, exterior wood stains and industrial finishes.

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

| | | |
|--------------------------------------|---------|------------|
| dynamic viscosity (10 1/s; 23 °C) | [mPa.s] | 400 - 2500 |
|--------------------------------------|---------|------------|

pH-Value DIN ISO 976

| | | |
|--------------------|--|-----------|
| pH-value (10 %) | | 7,3 - 8,3 |
|--------------------|--|-----------|

Non-Volatile Matter DIN 55671

| | | |
|--|-----|---------|
| non-volatile matter (120 °C; 5 min) | [%] | 42 - 43 |
|--|-----|---------|

Not continually determined:

Colour / Appearance VLN 250

| | | |
|----------------------|--|---------------------|
| colour appearance | | light brown opak |
|----------------------|--|---------------------|

Non-Volatile Matter DIN EN ISO 3251

| | | |
|---|-----|---------|
| non-volatile matter (1 h; 125 °C; 1 g) | [%] | 42 - 43 |
|---|-----|---------|

Density (Liquids) DIN EN ISO 2811-2

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|-------------------------------|----------------------|------|
| density approx. (20 °C) | [g/cm ³] | 1,02 |
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Flash Point (Pensky-Martens) DIN EN ISO 2719

| | | |
|-------------|------|------|
| flash point | [°C] | >100 |
|-------------|------|------|

COMPATIBILITY

Combination with other air-drying Resydrol types, e.g. Resydrol AS 894w, is possible. Addition of Resydrol AY 548wtix yields thixotropic paints. Resydrol AY 586w/42WA can also be combined with acrylic dispersions, e. g. Mowilith LDM 7410 or Mowilith DM 777; for this purpose, respective compatibility has to be carefully tested in advance.

PROCESSING

For the formulation of decorative paints only pigments with low content of water-soluble components should be used. Strong basic pigments are not suited. They tend to cause gelling and problems with storage stability, which has to be carefully tested before using such basic pigments. Current rutile type grades of titanium dioxide without zinc oxide coating normally yield paints of good storage stability.

Resydrol AY 586w/42WA can be dispersed together with the pigments, however for the formulation of high gloss paints it is recommendable to use a pigment paste, for example based on the dispersing agent Additol VXW 6208 (5 % on pigment).

For grinding, sand mills are recommended. In order to minimize loss of ammonia, care should be taken, that the temperature of the millbase does not exceed 50 °C.

During milling a certain amount of neutralizing agent may evaporate and therefore has to be replaced. If necessary, adjustment of pH-value with ammonia to a range between 8.0 and 9.0 (referred to an approx. 10 % solution in water) should be performed in order to ensure good stability of the paint during storage.

With Resydrol AY 586w/42WA only water-emulsifiable driers such as Additol VXW 4940, VXW 4940 N, VXW 6206, VXW 4952 or VXW 4952 N can be used. However, on account of its manganese content, Additol VXW 4952 should only be used in primers or coloured paints. Addition of 2 - 3 % of driers, referred to solids content, is recommended. For paints containing carbon black, the amount of driers should be doubled. All driers should be added before grinding. Certain types of wood of high tannin content (e. g. oak or red cedar) may cause colour changes. Previous testing is therefore recommended

when clear varnishes or wood stains are applied.

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.

Lowest storage temperature: - 5 °C

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

DISTINGUISHING FEATURES

In comparison to Resydrol AY 586w/38WA and 39WA, Resydrol AY586w/42WA does not contain organic cosolvents and therefore has a very mild smell and is very environmentally friendly.