

# RESYDROL<sup>®</sup> AM 410w/67WABG

**TYPE**

Water-soluble plasticized phenolic resin

Neutralization agent

2.1 % ammonia, as salt

**FORM OF DELIVERY (f.o.d.)**

67 % in water / butyl glycol (67WABG)

**PRODUCT DATA**

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219 dynamic viscosity 50% WA (25 1/s; 23 °C)	[mPa.s]	550 - 800
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pH-Value DIN ISO 976 pH-value (10 %)		7,5 - 8,5
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Non-Volatile Matter VLN 024 non-volatile matter (60 min; 110 °C; 1 g)	[%]	65 - 69
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Not continually determined:

Non-Volatile Matter DIN EN ISO 3251 non-volatile matter *	[%]	62 - 66
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(1 h; 125 °C; 1 g)

Density (Liquids) DIN EN ISO 2811-2 density approx. (20 °C)	[g/cm <sup>3</sup> ]	1,08
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Flash Point DIN EN ISO 1523 flash point approx.	[°C]	63
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**SPECIAL PROPERTIES**

Excellent adhesion resistance.  
Superior flexibility and corrosion resistance.  
Excellent hardness, superior storage stability.

**SUGGESTED USES**

Resydrol AM 410w is designed as sole binder for stoving primers and finishes. The superior stability characteristics make Resydrol AM 410w a valuable binder for dipping and flow coating paints.

For optimum performance we recommend a minimum stoving temperature of 170 °C, preferably 30 - 15 min / 170 - 190 °C. At these relatively high temperatures, however, Resydrol AM 410w shows considerable yellowing. Primers for industrial series production are the main outlet for Resydrol AM 410w. They afford superior ease of processing and outstanding storage stability. Films cured according to the recommended schedule exhibit great hardness balanced with flexibility, excellent adhesion to the various grades of steel and non-ferrous metals and excellent corrosion resistance.

**DILUTABILITY**

Resydrol AM 410w can be diluted preferably with deionized water. Water tolerant solvents such as low alcohols, ether alcohols, ester alcohols, ketone alcohols, etc. can be coemployed. Compatibility with higher alcohols, esters and ketones is limited. Small quantities of water-immiscible solvents can be used upon individual tests.

Water solubility is linked to a minimum pH value of over 7.5. On longer storage the pH value can decrease. It should be checked and readjusted with ammonia (maximum pH value 8.5).

## COMPATIBILITY

Resydrol AM 410w has limited compatibility with other water-dilutable resins. In general this can be neglected since the resin is designed to be a sole binder. The selection of pigments and extenders is governed by the restriction applying to water-dilutable heat curing resins. Resydrol AM 410w is not compatible with truly basic pigments. Pigments and extenders sensitive to alkali and such rich in electrolytes are not recommended.

## PROCESSING

### Pigmentation

Normal pigments and extenders except strongly basic ones and those containing a large amount of electrolytes can be used, among them titanium dioxide, iron oxides, lithopone with low zinc oxide content, carbon black, calcinated China clays, barium sulfates, calcium carbonate, micronized talcum. In order to further enhance corrosion resistance, anticorrosive pigments like basic lead silico chromate, strontium chromate or barium chromate can be coemployed.

### Dilution

Water-tolerant solvents should be coemployed along with deionized water in order to obtain a sufficiently high solids content of the paint at application viscosity. The quantities may range from 10 - 20 % on resin solids for spraying paints, with sec.-butanol being particularly suitable to cut the viscosity. In dipping or flow coating paints higher levels may be necessary, coemploying glycol ethers or diglycol ethers. For final adjustment of supply or application viscosity, deionized water should be the only solvent.

## 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: - 10 °C

### \* Note

The non-volatile matter content of a product is not an absolute quantity but depends upon the temperature and period of heating used for the test. Consequently, when using this method, only relative and not true values for non-volatile matter content are obtained owing to solvent retention, thermal decomposition and evaporation of low molecular mass constituents. The method is therefore primarily intended for testing different batches of the same type of product.

DIN EN ISO 3251 (09/95, page 2)

3.0/17.07.2013 ( replaces all previous versions )

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