

Technical Leaflet

WorléeSol 07 A

Art.-No. 111050-00566

Revision: 02.03.09

W'Sol 07 A is an air drying, water thinnable special fatty acid based alkyd, which will be water thinnable after neutralization with ammonia or amines.

Technical Data:

Non volatile content, 1h/125 °C, DIN EN ISO 3251	75% ± 2
Oil content	approx. 37%
Oil type	special fatty acids
Flow time, 20 °C, 50% in butyl glycol, DIN 53211-4	80 - 140 s
Acid value, on solids, DIN EN ISO 3682	35 - 45
Colour, Gardner, 50% in butyl glycol, DIN EN ISO 4630	max. 10
Density, 20 °C, DIN EN ISO 2811-1	approx. 1.03 g/cm ³
Delivery form	75% in butyl glycol / sec. butanol 1 : 1

Application and Properties:

W'Sol 07 A is a short oil, fast drying alkyd resin. W'Sol 07 A is especially suited for the manufacture of water thinnable air and forced drying primers and top coats with a relatively low viscosity.

For the fastest air dry rate ammonia should be used. For high gloss top coats and long term stability we recommend a combination of tri ethyl amine and ammonia. Alternatives like AMP-90 (Angus) etc. are also suitable.

$$\text{wt amine} = \frac{(\text{mol.wt.amine}) \times (\text{acid value resin solids}) \times (\text{wt. resin solids})}{56,100}$$

Primers based on W'Sol 07 A show a very fast drying, excellent adhesion, long term elasticity and good corrosion resistance.

The best corrosion resistance will be obtained with the chromate free combination zinc phosphate ZP 20 + 0.5-2.0 % Alcophor 827 (Heubach/Henkel).

Top coats with high gloss, fast drying, very good long term elasticity are easy to produce. Further good properties are early water and good outdoor resistance.

W´Sol 07 A shows an excellent hydrolyse stability.

W´Sol 07 A is compatible with different acrylic dispersions. Due to this properties like drying, adhesion on non-ferrous metals and film build can be improved. Furthermore the solids content of produced systems can be increased by such combinations. Nevertheless compatibility should always be tested very carefully.

The forced drying until 130 °C is possible without addition of amino resins. Above 130 °C the combination of W´Sol 07 A / melamine resin 80 : 20 is proved.

The application of W´Sol 07 A based paints is similar to the conventional systems that means spraying also electrostatic, dipping, floating. However other viscosity (e.g. 40 - 60 s DIN 53211-4) for air spray is necessary.

To guarantee a good stability of the ready made products, the ratio water/co-solvent should be 80 : 20 or 85 : 15.

The addition of 2 - 3% n-Butanol improves the storage stability.

pH-value: The pH-value has to be checked after the production of lacquers based on W´Sol 07 A. If necessary pH-value has to be readjusted. Optimum properties will be achieved at a pH-value 8.2 - 8.5.

Driers:

To achieve a better spreading the driers should also be dispersed if possible.

For primers and coloured enamels based on W´Sol 07 A the following driers are recommended:

0.05 - 0.15% Co + 0.05 - 0.15% Mn

for white and light pigmented systems

0.05% Co + 0.1% Ca + 0.1 - 0.3% Zr

(all calculated on solid resin).

Recommended Storage and Transport Conditions:

Up to 25 °C

Avoid direct sunlight

Further technical information and starting point formulations are available.