

SUPER GELKYD® 3920 WDA 49

ARCHITECTURAL COATINGS

ARKEMA COATING RESINS

Product Application details

SUPER GELKYD® 3920 WDA 49 is a urethane - urea modified thixotropic alkyd that has been developed for use in decorative coatings, especially exterior woodstains. It can be used as sole binder for high structured systems and in combination with long or medium oil alkyds. The resin is supplied in low aromatic high flash white spirit to enable the formulation of coatings that do not require adverse environmental labelling. SUPER GELKYD® 3920 WDA 49 can be formulated with polar solvents, alkyds (whatever their polarity) and a wide range of difficult pigments, which are not compatible with polyamide-based products.

Polymer Type

- Thixotropic Alkyd

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	48 - 50
Viscosity at 25°C, mPa.s (at 10000 s-1) (ISO 3219)	260 - 320
G', Pa (Bohlin, Intern. method LQ 39)	90 - 200
Colour, Gardner scale (ISO 4630)	5 max
Gel strength at 25°C, g/cm (Intern. method LQ 27)	120 - 220

Other Characteristics¹

Volatile	Low aromatic high flash white spirit
Flash point, °C (ISO 3679)	64
Density / Specific Gravity at 25°C, g/ml (ISO 2811)	0.90
Type of fatty acid	Linoleic rich

¹ The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

Formulation Guidelines

ACTIVATION

To achieve full structure it is necessary to "activate" the SUPER GELKYD® by adding polar solvent, normally at the end of paint manufacture. Glycols and glycol ethers have been found to be effective activating solvents. Propylene glycol is recommended and should be used at a typical level of 2-3% calculated on total solid resin content. Higher levels may adversely affect the final structure. It is important to add the glycol under very low shear at the end of the paint manufacturing process. Propylene glycol can lead to long-term corrosion of steel containers. It is recommended that lacquer lined cans are used.

DRIERS

SUPER GELKYD® 3920 WDA 49 requires metal driers to accelerate the autoxidation process. A suitable combination of driers for use in systems containing SUPER GELKYD® 3920 WDA 49 is: 0.06% cobalt, 0.09% zirconium and 0.1% calcium calculated as metals on solid resin. Depending on the formulation (clear, pigmented, etc...) and on the application, the loading of each drier may be increased or reduced in order to achieve the appropriate drying/hardness profile. The use of an anti-skinning agent is essential to prevent in-can skinning of the finished product.

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SUPER GELKYD® 3920 WDA 49 should be stored indoors in the original, unopened and undamaged container, in a dry place at a temperature not exceeding 30°C. Exposure to direct sunlight should be avoided.
In the above mentioned storage conditions the shelf life of the resin will be 6 months from the shipping date

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