

GELKYD® 4635 WD 51 (FORMERLY GELKYD® 9135 WD 51)

ARCHITECTURAL COATINGS

ARKEMA COATING RESINS

Product Application details

GELKYD® 4635 WD 51 is a soft gel polyamide modified thixotropic alkyd for use in all types of decorative coatings.

It has a reduced odour, is to be used as a co-binder for medium and long-oil alkyd resins. As it is a highly condensed resin, it prevents the penetration of the formulation into porous substrates. It is very efficient for wetting pigments and fillers.

GELKYD® 4635 WD 51 has been designed for use in matt and satin-finish paints.

Polymer Type

- Thixotropic Alkyd

Sales Specifications

Solid Content at 125°C, %	50 - 53
Reduced Viscosity at 25°C, mPa.s (solution at 40% in D40, at 2500 s-1) (ISO 3219)	350 - 550
Colour, Gardner scale (ISO 4630)	8 max
Acid value, mg KOH/g (ISO 2114)	15 - 23

Other Characteristics¹

Appearance	Soft gel
Volatile	Low aromatic white spirit
Flash point, °C (ISO 3679)	40
Density / Specific Gravity at 20°C, g/ml (ISO 2811)	0.89
Type of fatty acid	Semi-drying
Fatty Acid content, %	61

Note: Acid value and/or Hydroxyl value quoted relative to solid resin

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

Formulation Guidelines

INCORPORATION

The preferred method for incorporating GELKYD® 4635 WD 51 is to add the molten resin to the mill base prior to the addition of any remaining alkyd and other components of the formulation. The advantages of using the resin in the molten state include a) easy addition and incorporation, b) low shear can be used, c) reduced tendency for non-dispersed thixotropic resin to be present.

DRIERS

GELKYD® 4635 WD 51 requires metal driers to accelerate the autoxidation process. A suitable combination of driers for use in systems containing GELKYD® 4635 WD 51 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.

COMPATIBILITY

GELKYD® 4635 WD 51 is compatible with most other thixotropic alkyds, urethane alkyds, long and medium oil length alkyds, oleo-resinous varnishes, hard resins and drying oils. Polar solvents should be avoided as they can impair the thixotropy of the GELKYD®.

GELKYD®

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

GELKYD® 4635 WD 51 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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