

GELKYD® 4648 WD 80

ARCHITECTURAL COATINGS

ARKEMA COATING RESINS

Product Application details

GELKYD® 4648 WD 80 is a high solids polyamide modified thixotropic alkyd for use in all types of decorative coatings.

GELKYD® 4648 WD 80 is especially suitable for formulation of thixotropic paints that meet the 2010 VOC limits set in European Directive 2004/42/CE : formulated as sole binder, it allows the formulation of paints with a VOC lower than 300 g/l.

Supplied in low aromatic white spirit, GELKYD® 4648 WD 80 enables the formulation of coatings that do not require adverse environmental labelling and has been developed for use in the formulation of high quality decorative interior and exterior finishes.

When blended with suitable high solids alkyds, GELKYD® 4648 WD 80 can be used to produce media with a wide range of structures, from strong gel to creamy consistency, depending on the mixing ratio.

Polymer Type

- Thixotropic Alkyd

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	78 - 80
Viscosity at 25°C, mPa.s (at 2500 s-1) (ISO 3219)	1000 - 1800
Colour, Gardner scale (ISO 4630)	8 max
Acid value, mg KOH/g (ISO 2114)	10 max

Other Characteristics¹

Appearance	Strong gel
Volatile	Low aromatic white spirit
Flash point, °C (ISO 3679)	40
Density / Specific Gravity at 25°C, g/ml (ISO 2811)	0.96
Type of fatty acid	Linoleic rich
Fatty Acid content, %	79

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® 4648 WD 80 is to melt the resin (60°C) and add it to the millbase prior to the addition of any remaining alkyd and other components of the formulation.

The advantages of using the resin in its 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. For more information, consult ARKEMA's guide "Thixotropic resins for Decorative Coatings".

DRIERS

GELKYD® 4648 WD 80 requires metal driers to accelerate the autoxidation process. A suitable combination of driers for use in systems containing GELKYD® 4648 WD 80 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® 4648 WD 80 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® 4648 WD 80 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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