

TECHNICAL DATA SHEET

GELKYD® 4648 WD 80

Thixotropic Alkyd

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.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (125°C)	78 - 80 %	ISO 3251
Viscosity (at 2500 s ⁻¹) (25°C)	1000 - 1800 mPa.s	ISO 3219
Color	8 max Gardner	ISO 4630
Acid value	10 max mg KOH/g	ISO 2114

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Appearance	Strong gel	
Solvent	Low aromatic white spirit	
Flash point	40 °C	ISO 3679
Density (25°C)	0.96 g/ml	ISO 2811
Fatty acid type	Linoleic rich	
Fatty acid content	79 %	

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

MARKETS

Coatings & Inks

- Architectural Coating
 - Specialty Coatings
 - Trim

GELKYD® 4648 WD 80

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®.

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND 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 from the shipping date.

Shelf Life (Months): 6

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