GELKYD® 352 WD 54

ARCHITECTURAL COATINGS — ARKEMA COATING RESINS

Product Application details

GELKYD® 352 WD 54 is a strong gel polyamide modified thixotropic alkyd for use in all types of decorative coatings. The resin is supplied in low aromatic white spirit to enable the formulation of coatings that do not require adverse environmental labelling.
GELKYD® 352 WD 54 has been developed for use in the formulation of high quality decorative interior and exterior finishes.
When blended with suitable alkyds, GELKYD® 352 WD 54 can be used to produce 2010 compliant coatings with a wide range of structures, from strong gel to creamy consistency. GELKYD® 352 WD 54 has no adverse effect on drying and as it is very clear, it is especially suitable for dark shades paints.

Polymer Type

- Thixotropic Alkyd

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	53 - 55
Viscosity at 50°C, mPa.s (at 10000 s-1) (ISO 3219)	600 - 750
Colour, Gardner scale (ISO 4630)	8 max
Acid value, mg KOH/g (ISO 2114)	10 max

Other Characteristics[1]

Appearance	Strong gel
Volatile	Low aromatic white spirit
Flash point, °C (ISO 3679)	40
Density / Specific Gravity at 20°C, g/ml (ISO 2811)	0.91
Type of fatty acid	Linoleic rich
Fatty Acid content, %	62

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® 352 WD 54 is to add the molten resin (around 60°C) 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.
The full structure of coatings based on GELKYD® 352 WD 54 is only realised if the final product is filled out above its melting point – a temperature above 35°C is recommended.
For more information, consult ARKEMA's guide "Thixotropic resins for Decorative Coatings".

DRIERS

GELKYD® 352 WD 54 requires metal driers to accelerate the autoxidation process. A suitable combination of driers for use in systems containing GELKYD® 352 WD 54 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® 352 WD 54 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 & Handling	GELKYD® 352 WD 54 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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