

SUPER GELKYD 4743 WP 90

ARCHITECTURAL COATINGS

ARKEMA COATING RESINS

Product Application details

SUPER GELKYD 4743 WP 90 is a high solids thixotropic resin, based on urethane-urea technology and has been developed for imparting thixotropy to interior and exterior decorative coatings.

SUPER GELKYD 4743 WP 90 is supplied in isoparaffinic solvent to enable the formulation of low odour coatings that do not require adverse environmental labelling; it is designed for use in the formulation of decorative paints and woodstains that meet the 2010 VOC limits set in European Directive 2004/42/CE.

SUPER GELKYD 4743 WP 90 is highly thixotropic and should be used in combination with a high solids alkyd, at levels between 15 & 50% calculated on total solid binder to achieve a wide range of thixotropy ranging from slightly structured to full gel.

Performance Benefits

- Low VOC achievable
- Excellent drying, in particular in thick films
- Good colour retention
- High sag resistance and good levelling
- High film build
- Very low odour during application
- Suitable for interior and exterior applications

Polymer Type

- Thixotropic Alkyd

Sales Specifications

Solid Content at 125#C, % (ISO 3251)	89 - 91
Viscosity at 25#C, mPa.s (at 2500 s-1) (ISO 3219)	1600 - 2100

Other Characteristics¹

Appearance	Very strong gel
Volatile	isoparaffinic solvent
Flash point, #C (ISO 3679)	64
Density / Specific Gravity at 20#C, g/ml (ISO 2811)	0.945
Type of fatty acid	Linoleic rich
Fatty Acid content, %	84

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

It is important to note that full structure is attained only with the addition of a polar activating solvent - added at the end of paint manufacture. Glycols, such as propylene glycol, and glycol ethers, such as propylene glycol monomethyl ether, have been found to be most appropriate for this purpose. Normally between 2.5 & 5% of polar solvent calculated on total solid resin is added depending on the final rheology required.

For more information, consult ARKEMA's guide "Thixotropic resins for Decorative Coatings".

DRIERS

SUPER GELKYD 4743 WP 90 requires metal driers to accelerate the autoxidation process. A suitable combination of driers for use in systems containing SUPER GELKYD 4743 WP 90 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

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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.

SOLUBILITY

SUPER GELKYD 4743 WP 90 is soluble in isoparaffinic solvents, aliphatic and aromatic hydrocarbons, and esters and ketones. The use of isoparaffinic is recommended to reduce odour during application and to reduce re-occupancy time. Alternatively normal or de-aromatised white spirit can be used for dilution purpose.

COMPATIBILITY

SUPER GELKYD 4743 WP 90 is compatible with most long and medium oil alkyds, and with most long oil urethane oils and alkyds.

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SUPER GELKYD 4743 WP 90 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 9 months from the shipping date

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