

# 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 <sup>-1</sup> ) (ISO 3219)	1600 - 2100

## Other Characteristics<sup>1</sup>

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

<sup>1</sup> 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 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.

**SUPER GELKYD®**

### 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

---

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Arkema expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

Arkema has implemented a Medical Policy regarding the use of Arkema products in medical devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated medical grades to be used for such medical device applications. Products that have not been designated as medical grades are not authorized by Arkema for use in medical device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in medical device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.

It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies). It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.

### Arkema Coating Resins

420, rue d'Estienne d'Orves

92705 Colombes Cedex - France

arkema.com - [arkemacoatingresins.com](http://arkemacoatingresins.com)