

# UNITHANE® 612 S 60

GENERAL INDUSTRY

ARKEMA COATING RESINS

## Product Application details

UNITHANE® 612 S 60 is a fast drying short oil alkyd resin, obtained thanks to a specific selective condensation process, which allows to obtain a film with optimum resistance to outdoor exposure, hardness and chemical resistance.

The UNITHANE® 612 S 60 is particularly adapted for the formulation of anti-rust primers and varnishes.

The film of varnish formulated with UNITHANE® 612 S 60 exhibits a very good resistance to water, even after a very short drying time (3h – 75µm).

## Polymer Type

- Solventborne Urethane Alkyd

## Sales Specifications

Solid Content at 125°C, % (ISO 3251)	59 - 61
Viscosity at 25°C, mPa.s (Brookfield) (ISO 3219)	2500 - 3600
Colour, Gardner scale (ISO 4630)	8 max
Acid value, mg KOH/g (ISO 2114)	10 max

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

Volatile	Xylene / butyl acetate
Flash point, °C (ISO 3679)	27
Density / Specific Gravity at 25°C, g/ml (ISO 2811)	1.036
Type of fatty acid	Vegetable fatty acids
Fatty Acid content, %	36

Note: Acid value and/or Hydroxyl value quoted relative to solid resin

<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

### DRIERS

The following driers combination is recommended to siccative the UNITHANE® 612 S 60, it is calculated for 100g of neat resin:

cobalt: 0.05

zirconium: 0.15

calcium: 0.2

Depending on the formulation (clear, pigmented, thixotropic, 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.

### SOLUBILITY

UNITHANE® 612 S 60 completely soluble in aromatic hydrocarbons, esters and ketones and partially soluble in aliphatic hydrocarbons and alcohols.

### COMPATIBILITY

UNITHANE® 612 S 60 is completely compatible with short oil alkyd resins, melamine resins and ureic and has a limited compatibility with medium and long oil alkyds, epoxy ester and nitrocellulose the compatibility should be checked taking into account the targeted ratio of resins considered.

---

**Product Safety**

Please refer to the corresponding Safety Data Sheet.

---

**Storage & Handling**

UNITHANE® 612 S 60 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

---

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)

**ARKEMA**  
INNOVATIVE CHEMISTRY