

SYNOLAC® 435 BA 70

INDUSTRIAL WOOD

ARKEMA COATING RESINS

Product Application details

SYNOLAC® 435 BA 70 is a semi-drying, medium-oil alkyd for nitrocellulose combination varnishes, acid curing paints and 2 K-polyurethane systems for wood coatings.

SYNOLAC® 435 BA 70 is particularly recommended for use in nitrocellulose varnishes with comparatively good film build for industrial furniture finishing.

SYNOLAC® 435 BA 70 provides an excellent plasticizing effect for nitrocellulose. In relevant formulations it achieves high gloss levels and a good balance of flexibility and hardness allowing the formulation of varnishes with increased levels of alkyd resin and thus improved film build.

In acid curing systems SYNOLAC® 435 BA 70 shows a good reactivity and provides a good flexibility even at low temperatures. Stoving systems based on SYNOLAC® 435 BA 70 also maintain a good balance of hardness and flexibility and show a good gloss retention in exterior applications.

Polymer Type

- Solventborne Alkyd

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	69 - 71
Viscosity at 25°C, mPa.s (ISO 3219)	1500 - 2100
Iodine Colour index, (DIN EN 1557)	6 max
Acid value, mg KOH/g (ISO 2114)	10 max

Other Characteristics¹

Volatile	Butyl acetate
Flash point, °C (ISO 3679)	27
Density / Specific Gravity at 25°C, g/ml (ISO 2811)	1.03
Type of fatty acid	Semi-drying vegetable fatty acids
Fatty Acid content, %	43
Hydroxyl Content, %	5

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

RECOMMENDATIONS FOR USE

SYNOLAC® 435 BA 70 may also be used in two component wood coatings systems, either in combination with polyisocyanate cure agents or with urea and melamine formaldehyde resins to produce acid curing systems. In combination with highly reactive melamine resins SYNOLAC® 435 BA 70 may also be formulated to produce low temperature stoving systems for temperatures ranging from 80°C - 140°C.

In acid curing systems SYNOLAC® 435 BA 70 should be combined with suitable urea and/or melamine resins at ratios of 60:40 to 50:50 calculated on solid resins using approx. 3 % pTSA on solid resin as the acid catalyst. In stoving systems ratios of 70:30 to 60:40 SYNOLAC® 435 BA 70 / melamine resin are recommended.

The reaction ratio is calculated from the respective equivalent weight or hydroxyl and isocyanate content of the reactants. The relationship is:

$$\text{Hydroxyl equivalent weight} = \frac{17 \times 100}{\% \text{ OH}}$$

$$\text{Isocyanate equivalent weight} = \frac{42 \times 100}{\% \text{ NCO}}$$

SOLUBILITY

SYNOLAC® 435 BA 70 is soluble in aromatic hydrocarbons, esters, ketones, glycol ethers and glycol ether esters. It is partially soluble in alcohols and aliphatic hydrocarbons.

COMPATIBILITY

SYNOLAC® 435 BA 70 is compatible with many short oil alkyd resins and some saturated polyester resins, non-plasticized urea and melamine formaldehyde resins, nitrocellulose, low melting maleic and ketone resins, all commonly used polyisocyanate cure agents. It is incompatible with drying medium to long oil alkyd resin.

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SYNOLAC® 435 BA 70 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

ARKEMA
INNOVATIVE CHEMISTRY