

TECHNICAL DATA SHEET

SYNOLAC® 435 BA 70

Medium oil alkyd

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.

SALES SPECIFICATIONS

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

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Solvent	Butyl acetate	-
Flash point	27 °C	ISO 3679
Density	1.03 g/ml	ISO 2811
Fatty acid type	Semi-drying vegetable fatty acids	-
Fatty acid content	43 %	-
Hydroxyl content	5 %	-

¹The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

MARKETS

Coatings & Inks

- Industrial Coating
 - Wood Furniture

SYNOLAC® 435 BA 70

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:

Hydroxyl Equivalent Weight = $(17 \times 100) / \%OH$

Isocyanate Equivalent Weight = $(42 \times 100) / \%NCO$

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 AND 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 from the shipping date.

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