

TECHNICAL DATA SHEET

SYNOLAC® 271 X 60

Short Oil Alkyd

PRODUCT APPLICATION DETAILS

SYNOLAC® 271 X 60 is a fast drying, short-oil alkyd for air drying and stoving systems. SYNOLAC® 271 X 60 is universally suitable for a wide range of air drying industrial coatings, like fast drying primers, fillers, single layer coatings and finishes. In combination especially with highly reactive amino formaldehyde resins stoving systems, particularly drum coatings, may be formulated.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (125°C)	59 - 61 %	ISO 3251
Reduced viscosity (4mm, 50% in Xylene) (20°C)	120 - 150 s	DIN 53 211
Color (Iodine Colour index) (50% in Xylene)	6 max	DIN EN 1557
Acid value	15 max mg KOH/g	ISO 2114

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Viscosity (Brookfield RVT , 20rpm) (23°C)	3000 - 5000 mPa.s	ISO 3219
Solvent	Xylene	-
Flash point	24 °C	ISO 3679
Density	1.02 g/ml	ISO 2811
Fatty acid type	Vegetable fatty acids	-
Fatty acid content	27 %	-
Hydroxyl content	2.5 %	-

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
 - General Industry

PERFORMANCE BENEFITS

- Very fast drying
- Good solvent release
- Good balance of hardness and flexibility
- Good gloss
- Excellent yellowing resistance

SYNOLAC® 271 X 60

FORMULATION GUIDELINES

RECOMMENDATIONS FOR USE

Primers based on SYNOLAC® 271 X 60 maintain a good recoatability particularly when formulated without metal driers. Stoving systems with highly reactive melamine formaldehyde resins show a good cure response even at relatively low temperatures.

SYNOLAC® 271 X 60 can also be combined with aliphatic or aromatic polyisocyanates to formulate two- pack systems.

SYNOLAC® 271 X 60 can be easily pigmented with titanium dioxide pigments and most inorganic and organic colour pigments. In anti-corrosive systems the use of zincphosphates is recommended.

DRIERS

In primer formulations the use of driers is often not required with SYNOLAC® 271 X 60. However, with additions of 0.03% cobalt (metal on solid resin) the initial hardness can be improved. In finishes a combination of 0.02% - 0.03% cobalt with 0.4% - 0.6% zirconium (metal on solid resin) is recommended. 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 antiskinning agent is essential to prevent in-can skinning of the finished product.

SOLUBILITY

SYNOLAC® 271 X 60 is completely soluble in aromatic hydrocarbons, esters, glycol ethers, glycol ether esters and ketones. It is partially soluble in alcohols and aliphatic hydrocarbons.

COMPATIBILITY

SYNOLAC® 271 X 60 is compatible with short oil and some medium oil alkyds like SYNOLAC® 272 X 60, non-plasticized urea- and melamine formaldehyde resins, Resamin® HF 450 ⁽¹⁾, adhesion resin LTW ⁽²⁾, nitrocellulose, ketone resins. It is partially compatible with Epikote™ Resin 1001⁽³⁾ and some PVC-copolymers and incompatible with epoxyesters and styrenated alkyds.

Notes: ⁽¹⁾ Allnex, ⁽²⁾ Evonik Industries AG, ⁽³⁾ Momentive

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND HANDLING

SYNOLAC® 271 X 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 from the shipping date.

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