

# SYNOLAC® 271 X 60

GENERAL INDUSTRY

ARKEMA COATING RESINS

## 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.

## Performance Benefits

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

## Polymer Type

- Solventborne Alkyd

## Sales Specifications

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

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

Viscosity at 23°C, mPa.s (Brookfield RVT, 20rpm, sp4) (ISO 3219)	3000 - 5000
Volatile	Xylene
Flash point, °C (ISO 3679)	24
Density / Specific Gravity at 20°C, g/ml (ISO 2811)	1.02
Type of fatty acid	Vegetable fatty acids
Fatty Acid content, %	27
Hydroxyl Content, %	2.5

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

### 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.

SYNOLAC®

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*

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## **Product Safety**

Please refer to the corresponding Safety Data Sheet.

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## **Storage & 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 6 months from the shipping date

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