

SYNOCURE® 862 X 60 HV

Hydroxyl Functional Acrylic, 1.55% OH

Product Information

SYNOCURE® 862 X 60 HV is a hydroxyl functional acrylic resin designed to crosslink at room temperature with polyisocyanates, and is particularly recommended where economy in use is a major factor.

Particular performance characteristics achieved with SYNOCURE® 862 X 60 HV include:

- Exceptionally fast drying
- High Gloss
- Low isocyanate requirement
- Good hardening rate

Sales Specification

Non-volatile content at 125°C, % (ISO 3251)	59– 61
Viscosity at 25°C, mPa.s (ISO 3219)	6,500 – 9,500
Colour, Hazen scale (ISO 6271)	Max. 100
Acid value, mg KOH/g (ISO 2114)	5 - 8

Other Properties

Volatile	Xylene
Density at 20°C, g/cm ³ (ISO 2811)	approx. 1.03
Hydroxyl content, %	1.55
Hydroxyl equivalent weight (on solid resin)	approx. 1100

Noted: Acid value & hydroxyl value quoted relative to solid resin

Recommendations for Use

SYNOCURE® 862 X 60 HV should be mixed just prior to application with the selected polyisocyanate. The mixing ratio is not critical although it is preferable to use stoichiometric ratios to obtain optimum performance.

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

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

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

Using Desmodur N 75¹⁾ or Tolonate HDB 75 MX²⁾, the recommended ratios would be:

	on solid resin	as supplied
SYNOCURE® 862 X 60 HV	1100	1833
Desmodur N 75 ⁽¹⁾	191	255
Tolonate HDB 75 MX ⁽²⁾	191	255

At normal temperature, the surface drying time of paints based on this combination is typically 10 minutes, with hard dry in 30 minutes.

SYNOCURE® 862 X 60 HV reacted with Desmodur N 75⁽¹⁾ or Tolonate HDB 75 MX⁽²⁾ in stoichiometric proportions has a usable pot life of spraying viscosity in excess of a full working day at normal room temperature. The use of catalysts or higher temperature will reduce this storage period.

Paints prepared using stoichiometric blends of **SYNOCURE® 862 X 60 HV** and Desmodur N 75⁽¹⁾ or Tolonate HDB 75 MX⁽²⁾ give coatings which are sand dry in 7min – 10 min and hard dry in about 20min at normal room temperature.

To increase the initial rate of cure of **SYNOCURE® 862 X 60 HV** paints, at both ambient temperatures and under low bake conditions, the use of tin or zinc catalysts in the form of dibutyl tin dilaurate or zinc octoate is recommended. The levels used will depend on specific requirements, but typical metal contents calculated on total solid resin would be 0.001% tin or 0.0015% zinc

SOLUBILITY

The solvents chosen for paints and lacquers based on **SYNOCURE® 862 X 60 HV** should be free of water and should not contain groups that react with isocyanates. Esters and ketones are true solvents for this type of system and are recommended for use in conjunction with aromatic hydrocarbon diluents such as xylene.

Notes: ¹⁾Bayer ²⁾Perstorp

Precautions for Use

Please refer to corresponding Safety Data Sheet.

Storage Recommendations

SYNOCURE® 862 X 60 HV should be stored indoors in the original containers in a dry place at temperature between 5°C and 30°C. Avoid exposure to direct sunlight or frost.

Shelf Life

Under the above mentioned storage conditions the shelf life of the resin will be 12 months.

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