SYNOCURE® 803X-65

ARKEMA COATING RESINS

Product Application details

SYNOCURE® 803X-65 is a hydroxyl functional acrylic resin developed for use in compliant two component systems when cured with polyisocyanate.

Performance Benefits

- Longer Pot Life
- Good flexibility and hardness
- Good gloss
- Good exterior durability
- Good all round performance

Polymer Type

- Solvent borne Acrylic

Sales Specifications

Non-volatile content at 125°C, % (ISO 3251)	63 - 67
Viscosity in Poise at 25°C, Brookfield (ISO 3219)	150 - 200
Colour, Gardner scale (ISO 4630)	1 Max
Acid value, mg KOH/g (ISO 2114)	12 Max

Other Characteristics[1]

Viscosity in poise of 50% resin solution in xylene @25°C on Brookfield	10 – 15
Volatile	Xylene
Density at 25°C, g/cm3 (ISO 2811)	1.00
Hydroxyl Content, %	2.40
Hydroxyl Equivalent Weight	710

Note: Acid value and/or Hydroxyl value and hydroxyl equivalent weight 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

SYNOCURE® 803X-65 should be mixed with the selected polyisocyanate just prior to application. Stoichiometric mixing ratios are recommended to obtain optimum performance. Alternative ratios may be suitable for some applications, but should be evaluated by the coating formulator beforehand.

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

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The relationship is:

Equivalent Weight (EqW):	Hydroxyl EqW	Isocyanate EqW
	$\frac{17 \times 100}{\% \text{ OH}}$	$\frac{42 \times 100}{\% \text{ NCO}}$
	On Solids	As Supplied
SYNOCURE® 803X-65	710	1090
DESMODUR N-75	191	255

SOLVENTS**:** The solvents chosen for paints and lacquers based on SYNOCURE 803X - 65 should be free of water and should not contain groups that react with isocyanates. Ester and Ketones are True solvents and aromatic hydrocarbons are used as diluents.

POT LIFE**:** SYNOCURE 803X-65 reacted with Desmodur N75 in stoichiometric proportions has a usable pot life at spraying viscosity in excess of a full working day at normal room temperature. The use of catalysts or higher temperatures will reduce this storage period, although paints will still remain usable for several hours.

CATALYSTS**:** To increase the initial rate of cure of SYNOCURE 803X-65 based paints, at both ambient temperature and under low bake conditions, the use of tin catalyst in the form of dibutyl tin dilaurate is recommended. The level used will depend on specific requirements, but the recommended minimum level would be 0.001% tin calculated on total solid resin plus isocyanate.

Notes: Desmodur N 75 from Bayer

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SYNOCURE® 803X-65 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.

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

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