SYNOCURE®

TECHNICAL DATA SHEET

SYNOCURE® 570 X 65

Acrylic polyol

PRODUCT APPLICATION DETAILS

SYNOCURE® 570 X 65 is a hydroxyl functional acrylic resin developed for use in two component systems when cured with polyisocyanate.
SYNOCURE® 570 X 65 is recommended for the formulations, and is particularly recommended where higher application solids and excellent exterior durability is required.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (125°C, %)	65 - 67	ISO 3251
Viscosity (25°C, mPa.s)	4500 - 7500	ISO 3219
Color (Gardner)	1 max	ISO 4630
Acid value (mg KOH/g)	10 max	ISO 2114

OTHER CHARACTERISTICS[1]

	CHARACTERISTICS	METHODS
Solvent	Xylene	-
Density (25°C, g/mL)	1.04	-
Hydroxyl content (%)	3.1	-
Hydroxyl equivalent weight	550	-

[1] The 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
  - Automotive - Refinish
  - General Industry
  - Protective And Marine Coating

PERFORMANCE BENEFITS

- Long pot life
- Excellent drying time
- Excellent durability

SYNOCURE® 570 X 65

FORMULATION GUIDELINES

RECOMMENDATIONS FOR USE

SYNOCURE® 570 X 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.
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*100) / %OH
Isocyanate Equivalent Weight = (42*100) / %NCO

Using Tolonate™ HDB 75 MX(1) or Tolonate™ HDT(1), the recommended ratios would be:
- on solid resins: SYNOCURE®570 X 65 /Tolonate™ HDB 75 MX(1) or Tolonate™ HDT(1) = 550/191
- as supplied: SYNOCURE® 570 X 65 /Tolonate™ HDB 75 MX(1) or Tolonate™ HDT(1) = 845/255 or 191

SOLUBILITY

Solvents used in systems containing SYNOCURE® 570 X 65 should be low water content grades and not contain chemical groups (such as hydroxyl) which will react with isocyanates and thereby inhibit the film forming reaction. Esters and ketones are true solvents for this type of system, usually combined with aromatic hydrocarbon diluents.

POT LIFE

SYNOCURE® 570 X 65 reacted with Tolonate™ HDB(1) in stoichiometric proportions has a usable pot life at spraying viscosity in excess of a half 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.

CATALYST

To increase the initial rate of cure of SYNOCURE® 570 X 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 strongly 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: (1) Vencorex Chemicals

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND HANDLING

SYNOCURE® 570 X 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.
In the above mentioned storage conditions the shelf life of the resin will be 12 months.

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