

## TECHNICAL DATA SHEET

# SYNOCURE® 9291 BA 75

Acrylic polyol

### PRODUCT APPLICATION DETAILS

SYNOCURE® 9291 BA 75 is a high solid hydroxy functional acrylic resin designed to crosslink at room temperature with polyisocyanates.

SYNOCURE® 9291 BA 75 is particularly well suited for use in high quality industrial coatings top coat and clear coat. SYNOCURE® 9291 BA 75 has good resistance properties to solvents and chemicals and to exposure to weather and UV light, making it suitable for high quality anti-corrosive protection and for long life heavy duty coating.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Solid content (125°C)	74 - 76 %	ISO 3251
Viscosity (25°C)	4000 - 7500 mPa.s	ISO 3219
Color	50 max Hazen	ISO 6271
Acid value	9 - 13 mg KOH/g	ISO 2114

### OTHER CHARACTERISTICS<sup>1</sup>

	CHARACTERISTICS	METHODS
Solvent	Butyl acetate	-
Flash point	23 °C	ISO 3679
Density	1.05 g/ml	ISO 2811
Hydroxyl content	4.1 %	-
Hydroxyl equivalent weight	416	-

<sup>1</sup>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 - OEM
  - Automotive - Refinish
  - General Industry
  - Protective And Marine Coating

### PERFORMANCE BENEFITS

- VOC compliant
- Good durability
- High hardness and toughness
- Quick drying
- Scratch resistance: mar and car wash resistance

# SYNOCURE® 9291 BA 75

## FORMULATION GUIDELINES

### RECOMMENDATIONS FOR USE

SYNOCURE® 9291 BA 75 should be mixed with the selected polyisocyanate just prior to application. 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:

Hydroxyl Equivalent Weight =  $(17 \times 100) / \%OH$

Isocyanate Equivalent Weight =  $(42 \times 100) / \%NCO$

Using Tolonate™ HDB 75 series <sup>(1)</sup>, the recommended ratios would be:

- on solid resins: SYNOCURE® 9291 BA 75/Tolonate™ HDB 75 series <sup>(1)</sup> = 416/191

- as supplied: SYNOCURE® 9291 BA 75/Tolonate™ HDB 75 series <sup>(1)</sup> = 555/255

SYNOCURE® 9291 BA 75 reacted with Tolonate™ HDB 75 series <sup>(1)</sup> or Desmodur® N 75 series <sup>(2)</sup> in stoichiometric proportions has a usable pot life in excess of a full working day at normal room temperatures. The use of catalysts or higher temperatures will reduce this storage period.

To increase the initial rate of cure of SYNOCURE® 9291 BA 75 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 and 0.0015% zinc.

### SOLUBILITY

The solvents chosen for paints and lacquers based on SYNOCURE® 9291 BA 75 should be free of water and should not contain groups which react with isocyanates. Esters and ketones are true solvents for this type of system and are usually used with aromatic hydrocarbon diluents.

Notes: <sup>(1)</sup> VENCOREX® Chemicals, <sup>(2)</sup> Bayer MaterialScience

## PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

## STORAGE AND HANDLING

SYNOCURE® 9291 BA 75 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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