SYNOCURE® 866 EEP 75 MY

Hydroxyl Functional Acrylic, 4.2% OH **ARKEMA COATING RESINS**

Product Application details

SYNOCURE® 866 EEP 75 MY is a high solids content hydroxy functional acrylic resin developed for use in compliant two component systems when cured with polyisocyanate.
SYNOCURE® 866 EEP 75 MY is particularly well suited for use in high quality industrial coatings with good gloss and DOI. Such coatings also have exceptional exterior durability and gloss retention and are suitable for vehicle refinish, ACE or protective coatings.

Performance Benefits

- Excellent exterior durability
- Excellent drying times
- Good application properties
- Excellent chemical resistance

Polymer Type

- Solventborne Acrylic

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	73 - 77
Viscosity at 25°C, mPa.s (ISO 3219)	2500 - 4000
Colour, Hazen Scale (ISO 6271)	200 max
Acid value, mg KOH/g (ISO 2114)	6 - 10

Other Characteristics[1]

Volatile	Ethyl-3-ethoxypropionate
Density / Specific Gravity at 25°C, g/ml (ISO 2811)	1.05
Hydroxyl Content, %	4.2
Hydroxyl Equivalent weight	400

Note: Acid value and/or Hydroxyl value 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® 866 EEP 75 MY 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. The relationship is:

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

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

Using Tolonate™ HDT-LV (1), the recommended ratios would be:

	on solid resin	as supplied
SYNOCURE® 866 EEP 75 MY	400	533
Tolonate™ HDT-LV (1)	183	183

Conventional polyisocyanates such as Tolonate™ HDB 75 MX (1) or Desmodur® N 75 series (2) can be used successfully but for the highest solids content at application and the highest

weatherability resistance, a low viscosity type such as Tolonate™ HDT-LV (1) is recommended.

SYNOCURE® 866 EEP 75 MY reacted with Tolonate™ HDT-LV (1) in stoichiometric proportions has a usable pot life at spraying viscosity in excess of a full working day at normal room temperature. Although the use of catalysts or higher temperatures will reduce this storage period, paints will still remain usable for several hours.

To increase the initial rate of cure of SYNOCURE® 866 EEP 75 MY 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 0.01% tin calculated on total solid resin plus isocyanate.

SOLUBILITY

The solvents chosen for paints and lacquers based on SYNOCURE® 866 EEP 75 MY should be free of water and should not contain groups that react with isocyanates.

OTHER ADDITIVES

To optimise the performance of SYNOCURE® 866 EEP 75 MY, when used in a clear varnish formulation, the use of Tinuvin® 1130 (3) and Tinuvin® 292 (3) in a 1:1 ratio is recommended.

Notes: (1) Covestro, (2) Bayer MaterialScience, (3) Ciba

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SYNOCURE® 866 EEP 75 MY 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

Arkema Coating Resins Malaysia Sdn Bhd
PLO 491, Jalan Keluli, Pasir Gudang Industrial Estate,
81700 Pasir Gudang, Johor, Malaysia.
arkema.com - **arkemacoatingresins.com**

Arkema Coating Resins Malaysia Sdn. Bhd. - 05/2023