

# 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 refinishing, 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<sup>1</sup>

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

<sup>1</sup> 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

**SYNOCURE®**

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

---

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Arkema expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

Arkema has implemented a Medical Policy regarding the use of Arkema products in medical devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated medical grades to be used for such medical device applications. Products that have not been designated as medical grades are not authorized by Arkema for use in medical device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in medical device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.

It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies). It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.

**Arkema Coating Resins Malaysia Sdn Bhd**

PLO 491, Jalan Keluli, Pasir Gudang Industrial Estate,

81700 Pasir Gudang, Johor, Malaysia.

[arkema.com](http://arkema.com) - [arkemacoatingresins.com](http://arkemacoatingresins.com)

**ARKEMA**