SYNOLAC®

TECHNICAL DATA SHEET

SYNOLAC® 5086

Polyester polyol

PRODUCT APPLICATION DETAILS

SYNOLAC® 5086 is a low viscosity linear saturated polyester with good compatibility designed for blending with other systems in order to increase solids and reduce volatile organic contents.
SYNOLAC® 5086 is a highly versatile resin that can be used in diverse end-uses such as 2-component acrylic isocyanate or polyester isocyanate systems and high quality stoving systems.
SYNOLAC® 5086 will react into the blended system via its high hydroxyl content, and will not compromise durability.

SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Viscosity (25°C)	5500 - 8500 mPa.s	ISO 3219
Color	300 max Hazen	ISO 6271
Acid value	7 max mg KOH/g	ISO 2114

OTHER CHARACTERISTICS[1]

	CHARACTERISTICS	METHODS
Density	1.12 g/ml	-
Hydroxyl content	5,7 - 6,7 %	-
Hydroxyl equivalent weight	190 - 220	-
Solids content	100 %	-

[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 - OEM
  - Automotive - Refinish
  - General Industry
  - Protective And Marine Coating

PERFORMANCE BENEFITS

- Reduce volatile organic content
- Increase solids content
- Improve flexibility and toughness at low temperatures

SYNOLAC® 5086

FORMULATION GUIDELINES

RECOMMENDATIONS FOR USE

It is suggested that initial evaluations be carried out using SYNOLAC® 5086 at a substituted level of 20% of the main binder.
(a) 2-component systems
When used in combination with other hydroxyl containing resins in 2-component systems, SYNOLAC® 5086 will react with aromatic isocyanates such as Desmodur® L series [1] and aliphatic isocyanates such as Tolonate™ HDB series [2] and Desmodur® N series [1].
Recommended ratios using typical isocyanates would be:
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
(b) stoving systems
When used in combination with other resins in stoving systems, SYNOLAC® 5086 will react with most melamine resins, resin solids ratios of between 70:30 and 85:15 binder to amino are suggested.

SOLUBILITY

SYNOLAC® 5086 is completely soluble in aromatic hydrocarbons, esters and ketones and insoluble in aliphatic hydrocarbons.

COMPATIBILITY

SYNOLAC® 5086 is compatible with many resins including polyesters, acrylics, isocyanates, melamine, urea and alkyd resins.

Notes: [1] Bayer MaterialScience, [2] VENCOR®ex Chemicals

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND HANDLING

SYNOLAC® 5086 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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