Joncryl® OH 8300

General

Joncryl® OH 8300 is a rheology controlled acrylic dispersion for water-based thermoset metal and glass coatings.

Key features & benefits

- For 1K thermosetting coatings, crosslinkable with melamine resins or blocked polyisocyanates
- Excellent adhesion to metals and glass
- Good mechanical properties
- Good outdoor durability
- Excellent water, chemical and corrosion resistance
- Excellent application properties (spray application and roller coat) due to unique rheology profile
- Excellent pigment wetting properties
- very high gloss

Chemical nature

Hydroxy functional Styrene acrylic dispersion, rheology controlled (RC)

Zero add-on of NMP (N-methylpyrrolidone), NEP (Nethylpyrrolidone) and other organic solvents

Zero add-on of APEO (Alkylphenolethoxylaten) and metal organic catalysts

Properties

Appearance

liquid

Typical characteristics
(should not be interpreted as specifications)

Appearance		semi-translucent emulsion
Solids by weight	ISO 3251	42.0 – 45.0 %
Viscosity at 25 °C (Brookfield)	ASTM D-1824-72	50 - 500 mPa*s
Density (as supplied)	DIN 53217	~ 1.039 g/cm^3
pH	ASTM E-70-07	9.4 – 9.9
Glass transition temperature Tg (DSC)		~ 20 °C
Minimum film-forming temperature (MFFT)		< 15 °C
Hydroxyl content (%)		~ 1.3 %
Hydroxyl number (solids)		~ 42 mg/KOH g
Acid value (solids)	ISO 2114	~ 60

Application

Joncryl® OH 8300 is a thermosetting acrylic emulsion to be used for automotive and industrial applications, namely topcoats, general metal, glass or other stoving enamels. It is a very good alternative to solvent-based acrylic- and alkyd-melamine systems.

Joncryl® OH 8300 can be used under thermal curing conditions to produce interior or exterior coatings. The main applications are direct-to-metal coatings, topcoats and glass coatings.

Formulation Guidelines

Recommendation cross-linker

To obtain maximum chemical and water resistance Joncryl® OH 8300 should be crosslinked with:

- Melamine resins:
  e.g. Luwipal® 072, 073 LF or Luwipal® 066/066 LF/066 ULF
  Luwipal 072 is recommended due to the high reactivity and excellent final hardness. A ratio of binder : amino resin of 80:20 (on solids) is a good starting point for formulations. HMMM-resins (Luwipal® 066) may have to be catalyzed using (blocked) acids.
- or Blocked polyisocyanates:
  e.g. Easaqua™1 WT 1000 or Bayhydur ®2 BL 5140

™1 registered trademark of Ineos Chemicals
®2 registered trademark of Covestro

Dispersing agents

For pigment dispersing a combination of Joncryl® OH 8300 with Dispex® Ultra PX 4575 and 4585 is recommended for best possible gloss (up to 80 units at 20 °)

Defoamers

Defoaming can be achieved using FoamStar® SI 2280

Rheology modifiers

To adjust rheology, HEUR thickeners are recommended, e.g. Rheovis® PU 1191

Wetting agent

Hydropalat® WE 3500 or 3650 show superior substrate wetting on glass and metal

Coalescent solvents

Butyl glycol (BG) is recommended as coalescing agent, 6% based on the delivery form of the dispersion. To avoid shock of the dispersion, it is advisable to mix the BG with equal amount of water before addition.

Storage

Joncryl® OH 8300 shall be stored in its tightly sealed original packaging at temperatures between 5 °C and 40 °C.

This product must be protected from frost.

For further detailed application information please contact our Technical Support Department.

Safety
When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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