

JONCRYL[®] 8300

Key features and benefits

- 1.3% OH on solids, crosslinkable with melamine resins or blocked isocyanates
- excellent water, chemical and corrosion resistance
- good mechanical properties
- good outdoor durability

a rheology controlled acrylic emulsion for thermoset water-based industrial metal, metallic and glass coatings

General information

Typical physical characteristics (not to be considered specifications)

appearance	semi translucent emulsion
solids by weight	43.5%
viscosity, Brookfield	280 mPa.s.
specific mass as supplied	1,039 kg/m ³
pH	9.6
glass transition temperature T _g (DSC)	20 °C (68 °F)
minimum film-forming temperature	<15 °C (59 °F)
hydroxyl number (solids)	42
acid value (solids)	60
freeze/thaw-stable	no

Applications

JONCRYL® 8300 is a thermosetting acrylic emulsion to be used for general metal or other stoving enamels. It provides also a very good alternative to liquids coating based on water-reducible and solvent-based alkyds / melamine systems.

JONCRYL® 8300 can be used to produce interior or exterior coatings. The main applications are direct to metal, metal topcoats and glass coatings.

Performance

JONCRYL® 8300 provides excellent application properties particularly with spray and roller coat. The product is low on foaming, with excellent pigment dispersing properties, very high gloss, and adhesion to a great variety of substrates.

JONCRYL® 8300 is hydroxyl functional for crosslinking with melamines or with blocked isocyanates.

Formulation guidelines

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

- hexamethoxymethylmelamines, e.g.
Resimene¹ 745
Cymel² 303
- blocked isocyanates, e.g.
Rhodocoat³ WT 1000
Bayhydur⁴ BL 5140

Pigments may be dispersed in the resin without using wetting agents or other dispersants.

Ultimate foam prevention can usually be achieved with BYK⁵ 022, 024, Surfynol⁶ 104E or Dapro⁷ DF1181.

JONCRYL® 8300 is also compatible with K-flex⁸ UD320W for improvement of gloss and solids content of coating.

Quv gloss retention

The ratio JONCRYL® 8300/Cymel⁹ 303 has also an effect on QUV gloss retention.

A 8300/303 ratio of 65/35 gave a gloss retention of 65% after 850 hours whereas a ratio of 80/20 only retained 20% of the gloss. The addition of a catalyst did not have a significant effect on the gloss retention. These QUV gloss retention was tested using UVB-313 bulbs with 4 hours of light at 60°C, followed by 4 hours of condensation at 40°C.

Safety

When handling these products, advice and information given in the safety data sheet must be complied with. Further, protective and workplace hygiene measures adequate for handling chemicals must be observed.

Note

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