

Joncryl[®] 922

General

Joncryl[®] 922 is a fast curing acrylic polyol for high solids polyurethane coating applications.

Key features & benefits

Very low VOC
Fast dry time
Utility as a modifier
Supplied in n-Butyl acetate

Chemical nature

Acrylic polyol

Properties

Appearance

clear liquid

Typical characteristics

(should not be interpreted as specifications)

Solids(wt)	80%
Solids(volume)	75%
Hydroxy number of solids	140
Viscosity	5500 cps
Equivalent weight as supplied	500
Equivalent weight of solids	400
Density as supplied	8.8 lbs/gal, 1.05 g/mL
Density as solids	9.2 lbs/gal, 1.10 g/mL
Tg (measured)	70°C
Solvent	n-Butyl acetate

Application

Joncryl[®] 922 is an innovative acrylic oligomer for high solids polyurethane coatings. It employs a novel technology, which makes this polyol more reactive with isocyanate crosslinking agents. The result is the ability to formulate fast drying urethane coatings with quick dry times and a practical pot life. High solids coatings for maintenance, transportation, and other applications can be formulated from 2.3 to 3.8 pounds per gallon of VOC. Joncryl[®] 922 is supplied in n-Butyl Acetate for use in areas where odor is a concern. The Joncryl[®] 922 is also available in MAK as Joncryl[®] 920. Joncryl[®] 922 should be considered as a candidate for high performance, maintenance, and transportation coatings as a replacement for conventional solids urethane finishes.

Joncryl[®] 922 is recommended for applications such as:

- Interior/exterior general metal coating applications
- Automotive refinish coating applications

Formulation Guidelines

Crosslinker Selection

For maximum gloss retention properties, aliphatic isocyanates are recommended. The isocyanurate (trimer) or biuret versions of hexamethylene diisocyanate can be used. The trimer version may give better gloss retention and reactivity. A ratio of 1.05:1 of isocyanate to hydroxyl is normally recommended in the industry. However, a ratio of 1:1 of isocyanate to hydroxyl is more economical and does not sacrifice performance properties.

Solvent Selection

Because the hydroxyl functionality of alcohols and glycol ethers can react with isocyanates, their use should be avoided. Urethane-grade solvents should be used when available. Ketone solvents will give the best viscosity/VOC due to a combination of good solvency and low density. Esters generally provide the next best viscosity/VOC, but do not provide as low of a viscosity/VOC as the ketones due to their higher density. Generally, the lower the molecular weight of the solvent within the family, the lower the viscosity/VOC that is obtainable. Aromatics such as xylene and toluene provide good solvency and can be readily used in combination with the more polar solvents. Glycol ether acetates can be used but normally do not provide as low viscosity/VOC. PM- acetate should be avoided due to its film retention characteristics.

Catalysis

Due to the increased reactivity of Joncryl® 922, a catalyst is not normally required. If additional speed of cure is desired, typical urethane catalysts such as dibutyltin dilaurate can be utilized. If required, catalysis with 0.005% dibutyltin dilaurate on total binder solids is normally recommended. Higher catalyst levels will result in shorter pot lives and faster cure rates. Other catalysts such as zinc octoate and other metallic soaps can also be used.

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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