

Industrial Coatings

Technical Data Sheet



Joncryl[®] 581 Polyol

Product Description	Joncryl [®] 581 is a conventional solids, acrylic polyol for conversion varnish modification.
Key Features & Benefits	<ul style="list-style-type: none">- Improved chemical resistance- Increased hardness- Decreased dry time
Chemical Composition	Acrylic polyol

Properties

Typical Properties	Appearance	clear flake
	Hydroxyl number	~ 165
	Molecular weight (Mw)	~ 17,000
	Solids, calculated	100% by wt, 100% by volume
	Equivalent weight as supplied, of solids	360, 360
	Density as supplied, of solids	1.16 g/cm ³ (9.7 lbs/gal)
	Tg (measured)	62°C (143.6°F)
	Freeze-thaw stable	Yes

These typical values should not be interpreted as specifications.

Applications

Joncryl[®] 581 is a conventional solids, acrylic polyol for conversion varnish modification.

Joncryl[®] 581 is recommended for applications such as:

- Interior/sheltered exterior wood and metal applications
- Interior/sheltered exterior wood coatings for furniture or millwork applications
- Conversion varnish modification

Solvent Selection

Joncryl[®] 581 is supplied as an easy to cut solid flake. The following list of recommended solvents begins with the solvent most capable of the highest solids resin cut.

Solvent

Acetone
MEK
Ethanol (200 Proof)
n-Butyl acetate
n-Propanol
n-Butanol
Dowanol¹ PM
IPA
Butyl Cellosolve¹
Xylene

¹Trademark of The Dow Chemical Company.

Starting Point Formulation

The following starting point formulation replaces 20% of the alkyd solids with Joncryl® 581. Additional optimization of the formulation will be required to achieve desired results for specific applications.

Materials	Pounds	Gallons
Beckosol ² 12-035	296.61	35.29
Xylene	75.17	10.37
n-Butanol	91.15	13.50
MAK	66.15	9.73
n-Butyl acetate	98.15	13.35
Cymel ³ U-65	91.21	8.86
Subtotal	718.44	91.10
Next two items are premixed (60%):		
Joncryl® 581	44.12	4.54
n-Butyl acetate	29.38	4.00
BYK ⁴ -301	1.50	0.19
K-Cure ⁵ 1040	9.60	1.16
Total	803.04	100.99

Formulation Attributes

Solids	61% by wt, 45% by volume
Viscosity (Brookfield)	200 cps
PVC	17%
Pigment:Binder ratio	0.72
NCO:OH ratio	1:1
VOC (calculated)	3.8 lbs/gal, 461 g/l

²Registered trademark of Reichhold Chemicals, Inc.

³Registered trademark of Cytec Technologies Corp.

⁴Registered trademark of BYK-Chemie GmbH.

⁵Registered trademark of King Industries, Inc.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of personal protective equipment.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Joncryl® 581.

Important

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