

Industrial Coatings

Technical Data Sheet

Joncryl[®] 551 Polyol



Product Description	Joncryl [®] 551 is a conventional solids, acrylic polyol for 2K polyurethane and melamine-crosslinked coatings.
Key Features & Benefits	<ul style="list-style-type: none">- Lacquer-like dry times- Excellent gloss and gloss retention- Good chemical resistance
Chemical Composition	Acrylic polyol

Properties

Typical Properties	Appearance	clear liquid
	Hydroxyl number of solids	~ 90
	Acid number of solids	~ 8
	Non-volatile at 150°C (0.5g, 60 minutes)	~ 60%
	Viscosity at 25.0 ± 0.5°C (Brookfield #4LV, 30 rpm, 30 seconds)	4,000 – 10,000 cP
	Density at 20°C	~ 1.02 g/cm ³ (8.56 lbs/gal)
	Equivalent weight as supplied, of solids	~ 1,033, 620
	Tg	~ 49°C
	Solvent	Xylene

These typical values should not be interpreted as specifications.

Applications

Joncryl[®] 551, a solvent variation of Joncryl[®] 550, is a hydroxyl-functional acrylic oligomer designed for conventional solids isocyanate- and melamine-crosslinked systems. Joncryl[®] 551 is a drop-in replacement with minimum levels of reformulation and testing for several commercially available competitive acrylic polymers. It is a typical “workhorse” acrylic resin. Joncryl[®] 551 differs from Joncryl[®] 587 in cure time (faster) and UV durability.

Joncryl[®] 551 is recommended for applications such as:

- Interior/exterior automotive OEM and refinish applications
- Interior/exterior general metal industrial coating applications
- Interior/exterior plastic component coating applications
- Interior/exterior concrete coatings

Joncryl[®] 551 is available in the following solvents as the applicable product name:

- 65/35 blend of PM acetate/toluene as Joncryl[®] 550
- n-Butyl Acetate as Joncryl[®] 552
- t-Butyl Acetate exempt solvent as Joncryl[®] 558

Please refer to each product's Technical Data Sheet for performance information and specific starting point formulations.

Performance properties of Joncryl® 551 are similar to Joncryl® 550 with only minor effects from the coating formulation solvents. For details on performance information, please refer to the Joncryl® 550 technical data sheet.

Starting Point Formulation

The following starting point formulation is recommended for an initial evaluation of Joncryl® 551. Additional optimization of the formulation will be required to achieve desired results for specific applications.

Joncryl® 551 ACRYLIC URETHANE CLEAR COAT, Formula 1053111-02-19

Part A	Pounds	Gallons
Joncryl® 551	397.86	46.81
Efka® FL 3670	1.58	0.19
MAK	97.72	14.37
MIBK	97.85	14.67
MEK	97.21	14.38
Tinuvin® 1130	4.74	0.49
Tinuvin® 292	3.16	0.38
Irganox® 1010	3.16	0.33
1% DBTDL in 2,4-Pentanedione	3.16	0.39
Subtotal	706.44	92.01
Part B		
Basonat® HI 100	77.23	7.94
Total	783.67	99.95

Formulation Attributes

Solids	41.80% by wt, 33.00% by volume
Viscosity (Zahn #2)	15 – 19 seconds
NCO:OH ratio	1.05:1
VOC (calculated)	4.55 lbs/gal, 546.24 g/l

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® 551.

Important

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/use, BASF recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.** In no case shall the descriptions, information, data or designs provided be considered a part of BASF's terms and conditions of sale. Further, the descriptions, designs, data, and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained all such being given and accepted at the reader's risk.

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