

Industrial Coatings

Technical Data Sheet

Joncryl® 8383-A (old: Joncryl® 8383)



Product Description	Joncryl® 8383-A is a self-crosslinking acrylic emulsion for outdoor joinery industrial wood coating applications.
Key Features & Benefits	<ul style="list-style-type: none">- Good clarity and “warmth of wood”- Excellent water resistance- Good block resistance and sandability- Very good wet adhesion and flexibility
Chemical Composition	Acrylic emulsion

Properties

Typical Properties	Appearance	translucent emulsion
	Non-volatile at 145°C (2 g, 30 minutes)	~ 40.0 %
	pH at 25 ± 1°C	~ 8.0
	Viscosity at 25.0 ± 0.2°C (Brookfield #2LV, 30 rpm, 30 seconds)	~10 – 400 cps
Typical Characteristics	Density at 25°C	1.03 g/cm ³ (8.6 lbs/gal)
	MFFT	12°C
	Freeze-thaw stable	No

These typical values should not be interpreted as specifications.

Applications

Joncryl® 8383-A has been designed for factory-applied clear and pigmented wood finishes, on fast drying lines at room temperature drying. Joncryl® 8383-A emulsion is also very suitable for water and chemical resistant primers. (It can easily be over coated with a solvent-based system.)

Joncryl® 8383-A shows excellent water resistance, good hardness, block resistance, and excellent wet adhesion/elasticity (for outdoor purposes). Joncryl® 8383-A allows the formulation of a coating with a unique balance of chemical resistance, mechanical properties, and appearance. For outdoor purposes, Joncryl® 8383-A shows very good wet adhesion. The crosslinking chemistry of Joncryl® 8383-A allows drying at room and elevated temperatures. The good clarity, hardness development, and block resistance in combination with water resistance makes this product suitable for replacing some solvent-based coatings.

Joncryl® 8383-A is recommended for applications such as:

- Interior/exterior wood coatings for millwork applications
- Interior/exterior concrete applications

Formulation Guidelines

Coalescing - Joncryl® 8383-A film forming properties are excellent; the product is designed for efficient response to coalescents, resulting in a low coalescing solvent demand. For optimal film formation, it is crucial to select a well-balanced coalescing package, see starting point formula. (The use of Ethylene glycol mono n-butyl ether (EB) can cause a viscosity decrease over time.)

Stability - Joncryl® 8383-A is a self-crosslinking polymer. It is recommended to test the stability of the formulated lacquer for 4 weeks at 49°C.

Appearance - The wetting, clarity, flow, and leveling of Joncryl® 8383-A over light and dark wood is excellent and no special additives are needed.

Block resistance - Joncryl® 8383-A shows excellent early block resistance due to fast drying and fast hardness development. The product is easy to sand without clogging the sandpaper. Block resistance is strongly influenced by the coalescing solvent package and drying circumstances.

Starting Point Formulations

The following starting point formulation is recommended for an initial evaluation of Joncryl® 8383-A. Additional optimization of the formulation may be required to achieve desired results for specific applications.

Joncryl® 8383-A CLEAR SEALER/TOPCOAT, Formula 150-B

Materials	Pounds	Gallons
Joncryl® 8383-A	619.87	71.25
Hydropalat® WE 3320	3.21	0.37
Premix next three (3) materials:		
Water	166.86	20.02
Dowanol ¹ DPM	12.35	1.55
Dowanol ¹ DPnB	27.31	3.61
Then Add:		
FoamStar® ST 2436	1.76	0.22
Joncryl® Wax 26	21.18	2.58
Hydropalat® WE 3322	1.51	0.18
Rheovis® PU 1250 NC	2.00	0.22
Total	856.05	100.00

Formulation Attributes

Solids	30.4% by wt, 30% by volume
VOC	139 g/l, 1.15 lbs/gal

Comparative Data**Joncryl® 8383-A vs Joncryl® 1982****Chemical Resistance, 7 Day, 1 Hour Covered Spot Test**

	Joncryl® 8383-A Self-crosslinking Clear Coating	Joncryl® 1982 Self-crosslinking Clear Coating
Chemical Testing		
Initial: Water	0	2
Ethanol, 50%	1	1
Ethanol, 100%	2.5	2
IPA	3	2
Formula 409 ²	2	2
NKCA	0	1
Recovered:		
Water	0	0
Ethanol, 50%	0	0
Ethanol, 100%	2	1
IPA	3	1
Formula 409 ²	0	0
NKCA	0	0
Key: Degree of Effect: 0 = No Effect; 1 = Very Slight Effect; 2 = Slight Effect; 3 = Moderate Effect; 4 = Severe Effect		

¹Trademark of The Dow Chemical Company.

²Registered trademark of The Clorox Company.

König Hardness (oscillations)

	Joncryl® 8383-A Self-crosslinking Clear Coating	Joncryl® 1982 Self-crosslinking Clear Coating
1 Day	42	62
4 Days	60	101
7 Days	60	106

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 protective goggles.

Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet for Joncryl® 8383-A.

Important

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