

# Printing & Packaging

## Technical Data Sheet

# Joncryl® 843



<b>Product Description</b>	Joncryl® 843 is a solid flake acrylic resin for industrial hybrid powder coating applications.
<b>Key Features &amp; Benefits</b>	<ul style="list-style-type: none"><li>- <b>Chemical resistance</b></li><li>- <b>Hardness</b></li><li>- <b>Ultra low gloss</b></li><li>- <b>Low-cost epoxy acrylic</b></li></ul>
<b>Chemical Composition</b>	Carboxyl functional acrylic resin

### Properties

<b>Typical Properties</b>	Appearance	clear flake
	Molecular weight	~ 7,200
	Non-volatile	> 98%
	Acid number (0.3g in 3A alcohol)	~ 215
	Equivalent weight	275
	Softening point (ring and ball)	140°C
	Tg	86°C
	Freeze-thaw stable	Yes

These typical values should not be interpreted as specifications.

### Applications

Joncryl® 843 is a highly functional, acrylic resin suitable for reaction with bis-phenol A epoxies to generate epoxy/acrylic hybrids. Joncryl® 843 produces ultra-low gloss with exceptional chemical resistance and hardness at an extremely low formulated cost. Specifically, the balance of properties obtainable with this system in a low gloss black coating make it particularly suitable for general industrial application areas not requiring exceptional flexibility or appearance, like automotive underbody and wire screen.

Joncryl® 843 is recommended for applications such as:

- Interior/exterior general metal powder coating applications

## Starting Point Formulation

The following starting point formulation is recommended for an initial evaluation of Joncryl® 843. Additional optimization of the formulation may be required to achieve desired results for specific applications. This starting point formulation demonstrates ultra-low gloss, outstanding corrosion resistance, and excellent chemical resistance. The exceptional low gloss and cost performance balance makes this a unique system for many industrial and automotive applications.

### Joncryl® 843 ACRYLIC HYBRID BLACK, Formula 46-2A

Materials	Parts by Weight
Joncryl® 843	16.65
Araldite <sup>1</sup> GT 7013	39.90
Modaflow <sup>2</sup> III	1.00
Benzoin	0.50
Actiron <sup>3</sup> NXJ 60	0.25
Raven <sup>4</sup> 5000	0.70
Lanco <sup>5</sup> 362D	1.00
barytes	40.00
<b>Total</b>	<b>100.00</b>

### Extrusion Parameters (BUSS PLK46)

Zones 1 (kneading screw temperature)	65°C
Zones 2 (jacket temperature)	115 - 120°C
RPM	200

### Matte Black Coating Performance Properties

Gloss, 20°/60°	2/5
Direct impact resistance	160 in/lbs
Reverse impact resistance	40 in/lbs
Salt spray (1,250 hrs)	
Creep	2 mm
Blisters	None
Adhesion loss	None

<sup>1</sup>Registered trademark of Huntsman Advanced Materials GmbH.

<sup>2</sup>Registered trademark of Cytec Technology Corp.

<sup>3</sup>Registered trademark of Protex International Corporation.

<sup>4</sup>Registered trademark of Columbian Chemicals Corporation.

<sup>5</sup>Registered trademark of Lubrizol Corporation.

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## 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.

### Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Joncryl® 843.

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### **U.S & Canada**

BASF Corporation  
24710 W Eleven Mile Road  
Southfield, MI 48033  
ph: 1(800) 231-7868  
fax:1(800) 392-7429  
Email: [Custserv\\_charlotte@basf.com](mailto:Custserv_charlotte@basf.com)  
Email: [edtech\\_info@basf.com](mailto:edtech_info@basf.com)  
[www.basf.us/dpsolutions](http://www.basf.us/dpsolutions)

### **Mexico**

BASF Mexicana, S.A. de C.V.  
Av. Insurgentes Sur # 975  
Col. Ciudad de los Deportes  
C.P. 03710  
Mexico, D.F.  
Phone: (52-55) 5325-2756  
Fax: (52-55) 5723-3011