

**ISOCRYL® C-78
ACRYLIC RESIN
FOR POWDER COATING**

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THE EDGE OF INNOVATION

GENERAL DESCRIPTION

Isocryl® C-78 is a high-Tg carboxyl-functional, solid acrylic resin designed for powder coating applications. Appropriately formulated, Isocryl C-78 can:

- * Enhance chemical resistance, outdoor durability, heat resistance, and scratch and mar resistance.
- * Replace the carboxyl polyester in hybrid systems for applications where improvements in hardness, chemical resistance and enhanced UV resistance are required.
- * Be used as the binder resin with TGIC crosslinking to improve chemical, mar and scratch resistance.
- * Provide excellent appearance in clear formulations.

As with any raw material, laboratory evaluation is required for each formulation to determine the best processing method and the optimum concentration of the binder components.

TYPICAL PROPERTIES*

Appearance	Clear Flakes
Softening Point (ASTM E28-14)	115 - 130°C
Non-Volatile, weight%	98.5% minimum
Acid Value	65 - 75
Glass Transition Temperature, Tg	75 – 80°C

* Not to be used for specification purposes

EXAMPLES OF ACRYLIC EPOXY HYBRID FORMULATIONS AND COMPARISON TO COMPETITIVE PRODUCTS:

Formulation	C-78 Grey Hybrid	Competitive Resin #1 Gray Hybrid	Competitive Resin #2 Gray Hybrid
Isocryl C-78	356		
Competitive Resin #1		356	
Competitive Resin #2			356
Resiflow® PL-200	10	10	10
Benzoin	5	5	5
Titanium	257	257	257
Iron Oxide Black	10	10	10
Escat 50	6	6	6
GT 7013 (Huntsman)	356	356	356
Total	1000	1000	1000
Gloss at 60°	88	77	81
Reverse Impact (inch per lb.)	140	60	80
MEK, double rubs	50	50	50
PCI Smoothness	5	5	6

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EXAMPLES OF TGIC CLEAR AND BLACK FORMULATIONS:

Formulation	Black	Clear
Isocryl C-78	680	865
TGIC	92	120
Resiflow® PL-200	10	10
Benzoin	5	5
Escat 50	3	
Barium Sulphate	200	
Carbon Black	10	
Total	1000	1000
Gloss at 60°	89	>80
Direct Impact inch per lb.	10	0
MEK, double rubs	150	100
PCI Smoothness	5	7
Pencil Hardness, Gauge ASTM D3363	5H	5H
Comments		Good Clarity
QUV B, ASTM G-154 Cycle 2, 300 hours		
Gloss Retention	93%	NA
Delta E	0.35	NA

REGULATORY LISTINGS

The components in this material are either listed or exempt from listing due to polymer exemption criteria for the following chemical listing inventories: AICS (Australia), DSL (Canada), ECL (Korea), EINECS (Europe), ENCS (Japan), IECSC (China), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA).

Isocryl C-78 is compliant with EU directive 2002/95/EC and is also compliant with US 21 CFR 175.300. The finished coating must meet the extractive requirements of 21 CFR 175.300. This aspect of compliance is the responsibility of the manufacturer or user of the finished coating.

PACKAGING (NET WEIGHT)

55 lb. / 25 kg in fiberboard box with polyolefin liner

PRODUCT AVAILABILITY

This product is available in commercial quantities. Please contact your Estron Sales Representative for lead time and availability.

STORAGE AND HANDLING

Keep container tightly closed and store in a dry, well ventilated area away from heat and sources of ignition. Shelf life of unopened containers is one year from date of shipment. See SDS for additional information.

CONTACT INFORMATION

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