

ISOCRYL® EP-540G *Experimental Product*
HARDENER FOR MID-GLOSS
POLYESTER POWDER COATINGS



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GENERAL DESCRIPTION

ISOCRYL® EP-540G is a glycidyl-functional acrylic copolymer designed for use as a hardener ideally suited for producing unpigmented (clear) exterior-durable polyester powder coatings with adjustable mid-range gloss. Additional benefits include excellent chemical and impact resistance, low contamination profile and good smoothness.

TYPICAL PROPERTIES*

Appearance	Ground Clear Flakes
Non-Volatile, weight %	98.5% minimum
Theoretical Epoxy Equivalent Weight	400-450
Glass Transition Temperature	57-66°C

* Not to be used for specification purposes

ISOCRYL EP-540G HIGHLIGHTS

Designed to achieve 3-40 gloss unpigmented coatings with a variety of standard and super-durable carboxyl resins in a one-component single extrusion system.

Best results for chemical resistance and impact are achieved by balancing the stoichiometry ratios of EP-540G and a second crosslinker such as Primid® XL-552 with the partner polyester resin. A convenient stoichiometric calculator is available by contacting your Estron sales representative. Alternatively, the EP-540G level can be held constant and the amount of XL-552 adjusted to fine tune gloss. Polyester resins have different gloss adjustment characteristics that can be optimized through a level study in order to find the most favorable formulating range. Resins with acid value below 32 are not recommended for use with EP-540G.

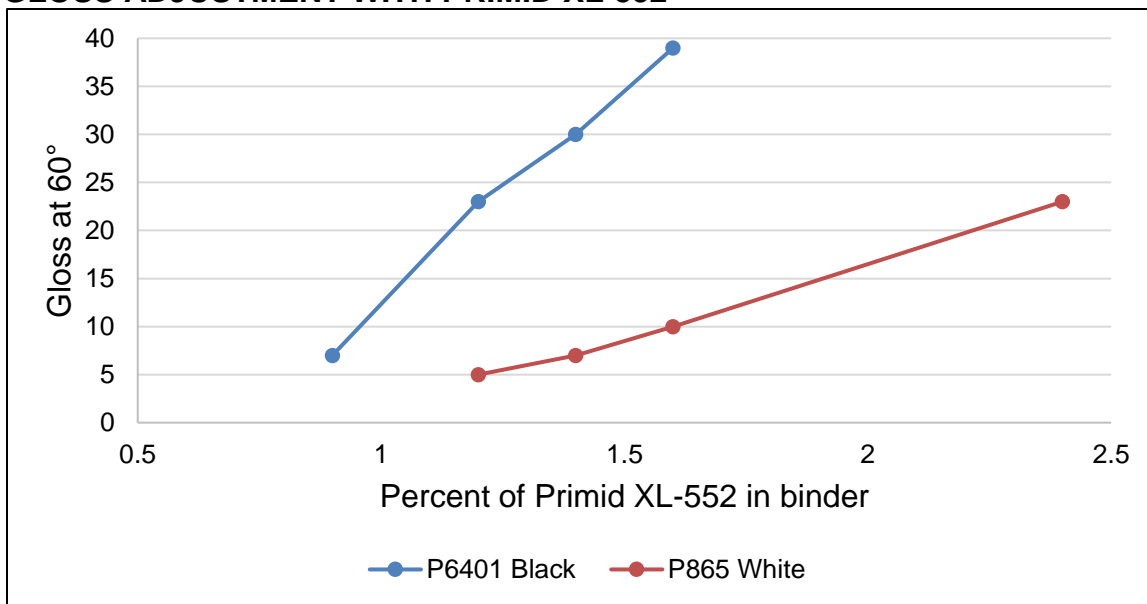
It is recommended that formulated powders be tested for physical and chemical advancement storage stability. Recommended storage temperature is below 30°C. Estron Chemical has a complete powder coatings laboratory with formulating capability at our Calvert City location and can assist you in developing starting point formulations for your specific resin.

EXAMPLE OF FORMULATIONS

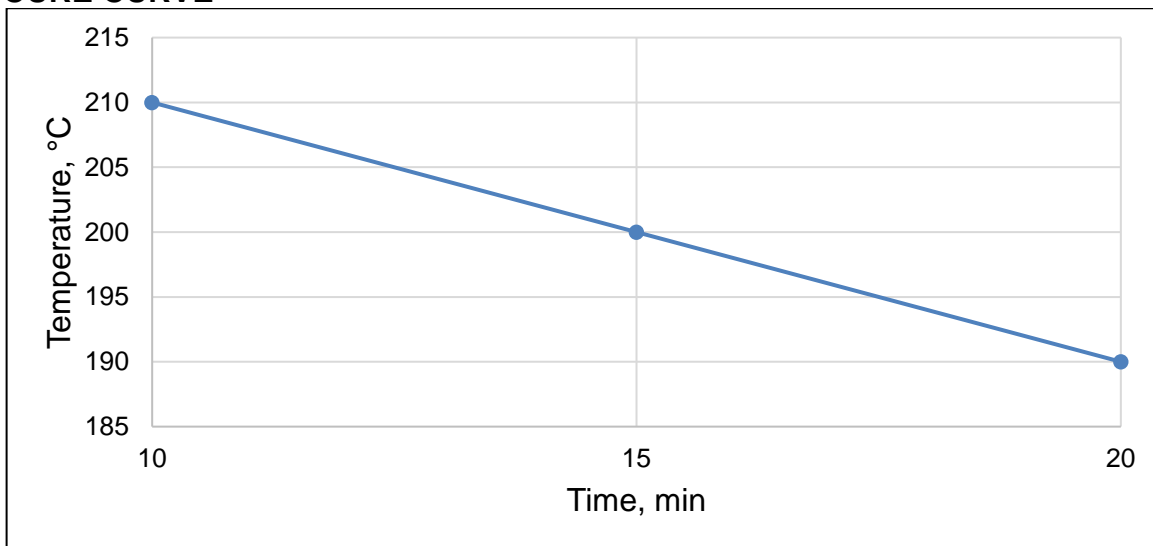
Formulation	1	2	3
CC2441-2 (Allnex)	778.8		
P3400 (DSM)		778.8	
CC4430-0 (Allnex)			807.6
EP-540G	196.2	196.2	160.2
Primid® XL-552 (EMS)	10	10	17.2
Resiflow® PL-200	10	10	10
Benzoin	5	5	5
Total	1000	1000	1000
Cure: 15 min at 200°C			
Film Thickness, µ	50-70	50-70	50-70
Gloss at 20°	2.9	2.6	8.5
Gloss at 60°	6.3	5.5	15.8
Reverse Impact (inch per lb.)	160	160	<20
MEK	25	25	25
PCI Smoothness	8	7	6

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GLOSS ADJUSTMENT WITH PRIMID XL-552



CURE CURVE



Cure determined by 20+ inch per lb. reverse impact, 50+ MEK double rubs and no yellowing of White

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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: EINECS (Europe), TSCA (USA), DSL(Canada), NZIoC (New Zealand), REACH (Europe) pre-registered.

PRODUCT AVAILABILITY

This product is experimental, with samples available for screening evaluations. Larger quantities are available, although a 4-6 week lead time may be required.

STORAGE AND HANDLING

Keep container tightly closed and store in a dry, well ventilated area away from heat and sources of ignition. Store at less than 100°F (38°C). Shelf life of unopened containers is one year from date of shipment. See SDS for additional information.

CONTACT INFORMATION

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Revision Date: May 3, 2018

TDS Revised by: A. Chizhikova

TDS Approved by: F. Allen