



## TECHNICAL PRODUCT GUIDE

### 3110-91142-2 EXTREME BLACK III

#### Product Description

Lower gloss black powder Formulated to withstand continuous and intermittent service at elevated temperatures on ferrous and non-ferrous substrates.

Good exterior durability.

**\*TCI recommends customer testing for product suitability for the application requirements, and for evaluating application characteristics and mil thickness control, and compatibility with current products used in the application system.**

#### Substrate Preparation

- Coating performance is influenced by type of substrate being coated and the type and quality of substrate preparation.
- Surfaces must be properly cleaned and free of organic and inorganic contaminants.
- Pretreatments designed for high temperature service can be used.
- For best results surfaces to be coated should be blasted in accordance with SSPC SP-10/NACE #2,ISO SA 2.5, with anchor profile of 0.75 to 1.5 mils.
- Contact pretreatment supplier for temperature limitations of current systems.

#### Powder Application

##### **Cure Schedule:**

Metal Temperature	Time
450 <sup>o</sup> F	20 minutes

\*Time part is at temperature

\*\*Good properties can be achieved baking at 40 minutes at 425 F and 40 minutes at 400 F (metal temperature), however the resulting gloss will be 30-40%

##### **Film Build:**

Minimum Thickness	Maximum Thickness
1.5 mils	2.5 mils

\*Cure reaction byproducts will create surface defects if coating applied too thick. Speed of part temperature ramp-up influences maximum film thickness.

\*\*Testing under actual conditions is highly recommended.

Equipment: Electrostatic application to room temperature substrate recommended.

Evaluate application parameters for improvement in film thickness uniformity

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DATE: July 2019

## Powder Properties

Specific Gravity (SG) 1.76 +/- 0.05  
Theoretical Coverage at 1 mil: 109.7 ft<sup>2</sup>/lb.  
Particle size D90: 85-100 u

## Film Properties

Tested at 2-3 mils on Cold Rolled Steel, 3 x 5 x 0.02

Property	ASTM Standard	Result
Gloss 60 <sup>o</sup>	ASTM D523-14	20-29
Adhesion	ASTM D3359	5B
Direct Impact	ASTM D2794-90	40 in/lbs.
Reverse Impact	ASTM D2794-90	20 in/lbs.
Hardness	ASTM D3363	2H
1-hour exposure at 1000° F	ASTM D3359	4B

Typical values when products are applied to CRS at 1.5-2.5 mils

## Storage:

Store in cool, dry environment. Store below 80 F and below 60% humidity.  
Evaluate powder before application if stored over 12 months from manufacturing data.

## Caution:

Adequate health and safety precautions should be observed during storage, handling, and application.  
Read SDS before using this product.

## Disclaimer:

The technical data and suggestions for use in this product data sheet are currently correct to the best of our knowledge but are subject to change without notice. Application and application conditions vary, and are beyond control of TCI, therefore TCI is not responsible for results obtained in using this product, even when used as suggested. The user should conduct tests to determine the suitability of the product for the intended use under the existing conditions. Our liability for breach of warranty, strict liability in tort, negligence or otherwise is limited exclusively to replacement of the product or refund of its price. Under no circumstances are we liable for incidental or consequential damages.