

PRODUCT DATA SHEET
HEAT RESISTANT
POWDER COATING
BLACK SMOOTH
1PC-653-2900

DESCRIPTION

This formula is a specially formulated high-temperature silicone system developed from a proprietary blend of resins and pigments to provide service up to 800°F (427°C). It is designed to be a compatible medium gloss, smooth coating for steel and aluminum substrates.

Product Benefits

- Good long-term performance at 800°F (427°C) while maintaining color, gloss and film integrity.

SPECIFICATIONS

Cure Cycle [Substrate temperature]	20 minutes @ 450°F (232°C)
Specific Gravity	2.0 +/- 0.05
Theoretical coverage at 1 mil	96 ft. ² / lb.
Film builds between	1.8 and 3.0 mils
Recommended at	2.0 mils
Theoretical coverage at recommended	48 ft. ² / lb.

****Heavier film builds are not recommended. *Initial cure physical properties are not as tough as standard powder chemistries. Properties improve when used at higher temperatures.***

Carefully observe the minimum cure cycle recommended on the technical data sheet. Please note that the substrate is at temperature for at least the specified period of time. In most applications the product will achieve improved initial properties with increased time at temperature. These products are high temperature resistant coatings, so there is no chance of over baking them at recommended curing temperature.

TYPICAL PROPERTIES

Adhesion (ASTM D3359)	4B-5B
Gloss at 60° (ASTM D523)	25-35
Impact Resistance (ASTM D2794-90)	60D/20R
Pencil Hardness (ASTM D3363)	>H

PERFORMANCE TESTING

Continuous testing for 48 hours at 800°F (427°C) shows this product holds gloss, color and physical integrity at this service temperature. Testing for 168 hours at 1000°F (538°C) indicates good performance up to 24 hours with some gloss change at extended times at elevated temperatures. Testing indicates good film integrity after exposure to temperatures of 1200 °F (649°C).

SURFACE PREPARATION

High temperature coatings require cleaner substrates to maintain a good bond between metal and coating. Abrasive media blast is an excellent method of surface preparation. Chemical pretreatments are effective, but must be rinsed to a clean surface with no dirt or cleaner residue. *Phosphate pretreatments have their own temperature limits that must be observed.* Contact your chemical pretreatment supplier. Also substrates have limits that must be observed.

FINISHED PRODUCT HANDLING

The finished coated product is not as tough as standard powder coatings. Care must be exercised in handling and packing to ensure that finish is not damaged.

PRECAUTIONS

Read and understand the MSDS before using. This product is more temperature sensitive than normal powders and should be used at temperatures below 77°F (25°C). This product is more susceptible to moisture than other powder products. Because of the electrostatic properties of this powder a fluidizing feed hopper with higher air flow must be used.

**We recommend testing for compatibility with other products that you use before purchasing.*

STORAGE

This product should be stored at temperatures below 77°F (25°C) for up to 6 months. Under carefully controlled conditions, shelf life may be extended.

LIMITATIONS

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. Because application and conditions vary, and are beyond our control, we are 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. 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 circumstance are we liable for incidental and consequential damages.