INFERNEX® PS-1000 Flat Black Technical Data Sheet

PRODUCT DESCRIPTION

A decorative powder coating that withstands high temperatures for general use on ferrous and non-ferrous metal. This product is also sold as 1PC-654-2139.

APPEARANCE

Color: Black
Gloss: Flat
Finish: Textured

If the significant surface is too small or unsuitable for the gloss to be measured with the gloss meter, the gloss should be compared visually with the reference sample.

PROPERTIES

Property	Result
Specific Gravity (S.G)	1.74 +/- 0.05
Theoretical Coverage at 1 mil (25.4 µm)	111 ft²/lb (22.7 m²/kg)

The technical data provided below are typical for this product when applied as follows:

Substrate: Cold Rolled Steel

Film thickness: 1.5 - 2.5 mils (38 - 64 µm)

Typical values when tested.

Property	Standard	Result
Gloss @ 60°	ASTM D523-14	1.5 – 2.5
Adhesion	ASTM D3359	3B
Impact Resistance	ASTM D2794-90	100 in-lbs
Pencil Hardness	ASTM D3363	5H
Salt Spray	ASTM B117/D1654	336 hours at 2 mil DFT
QUV-A	ASTM D4587 Cycle 4	576 hours, Gloss Retention 88-100%, ΔE_{2000} 2.6 average

FORREST Technical Coatings
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Coating Post Burn Performance Results

Test	Temperature Tested	Time	Result	Method
Color after burn	800 °F (427 °C)	8 Hours	Pass	Muffle Furnace
Adhesion after burn	1000 °F (538 °C)	1 Hour	5B	Muffle Furnace

*Color after burn is a representation of normal operating temperature with minimal color shift.

**Adhesion after burn is the maximum temperature tested at which there is good film integrity to protect the part.

APPLICATION

Pre-cleaning:
Clean all surfaces to be coated in accordance with SSPC-SP-1, Solvent Cleaning prior to additional surface preparation or coating application. Surface must be clean, dry and free of any dirt, dust, oil, and all other visible contaminates that could potentially interfere with adhesion of the coating.

Surface preparation:
The overall performance of the coating system is largely dependent on the nature of the substrate and the type and quality of the surface preparation. Surfaces to receive coating may be prepared using liquid pretreatment designed for high temperature service. For optimal results, we recommend abrasive blast cleaning in accordance with SSPC SP-10/NACE #2, ISO SA 2.5, anchor profile 0.75 to 1.5 mils (19 to 38 microns). Before using phosphate pretreatments, contact your supplier for temperature limitations. Substrates also have structural physical temperature limits that must be observed.

Powder Application Conditions

Cure Schedule *	Temperature	Time
	428 °F (220 °C)	17 minutes

Film Build	Minimum Thickness	Maximum Thickness
	1.5 mils (38 µm)	2.5 mils (64 µm)

*Other curing schedules may be used upon technical approval. Cure schedule is based on substrate temperature.

Equipment
Electrostatic application to room temperature substrate is recommended. Suitable for Corona charging equipment, reduced voltages can improve coating film thickness uniformity. This product may be applied to warm substrate for increased film thickness.

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STORAGE

Keep in a dry cool area. Maximum temperature of 77 °F (25 °C) and maximum relative humidity 60%. If stored longer than 12 months a quality test is recommended.

CAUTION : Adequate health and safety precautions should be observed during storage, handling, use and curing periods.

READ SAFETY DATA SHEETS 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. 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 under then 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.

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