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TITLE: EPOXY COATING SPECIFICATION

1.0 Purpose

The purpose of this specification is to define the epoxy coating requirements used on components used on industrial duty, stationary rotary screw compressors.

2.0 Scope

This specification details the procedures for metal preparation and coating application for all fabricated parts, sheet metal parts, and castings purchased or manufactured by Ingersoll-Rand, Davidson, NC.

3.0 Requirements of Coating

To ensure a satisfactory surface for coated application, all surface rust and scale must be removed.

4.0 Metal Preparation

The base metal shall be prepared and cleaned in accordance with the manufactures recommendations. Sandblasting of surface is preferred cleaning method.

5.0 Application

Coating is to be applied according to manufactures recommendations. Dry film thickness shall be a minimum of 5 mils and shall not exceed a maximum of 20 mils.

6.0 Color

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Any factory available color is acceptable, unless noted otherwise on applicable I/R drawing.

7.0 **Performance Requirements**

7.1 Physical Tests

7.1.1 Abrasion Resistance ASTM D4060

1 kg load/1000 cycles	weight loss
CS-17 wheel	102 mg

7.1.2 Impact Resistance ASTM D2794

Direct	24 in. lb.
Reverse	6 in. lb.

7.1.3 Moisture Vapor Transmission ASTM D1653

Test method B, condition C	6.04 g/m ²
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7.1.4 Adhesion ASTM D4541

Material must withstand minimum of 900 psi.

7.2 Chemical and Durability Tests

7.2.1 Salt Spray ASTM B117.73 - no face blistering shall be visible after 3000 hours of salt spray testing.

7.2.2 Humidity Resistance ASTM D2247-68 - parts exposed to 100 percent relative humidity for 750 hours shall show no face corrosion or blistering.

7.2.3 Immersion NACE TM-01-69 - no face blistering shall be visible after one year of immersion in fresh water.

8.0 **Preparation for Shipment**

- 8.1 Coating must be sufficiently cured to prevent any damage to surface due to packaging. The coated surface shall not require any reconditioning prior to use by Ingersoll-Rand.
- 8.2 It is the responsibility of the supplier to protect the parts during shipment to Ingersoll-Rand.

