



# ROTARY PAINT SPECIFICATION

Davidson, NC 28036

Ref: **7002.03**  
Date: **2 August 2012**  
Cancels: **8 October 2002**

---

## SCOPE:

This specification details the minimum requirements for metal preparation and textured beige powder-coating application for all fabricated parts, sheet metal parts, and castings purchased or manufactured by Ingersoll-Rand, Davidson, North Carolina.

## GENERAL REQUIREMENTS AND PERFORMANCE:

- A. METAL PREPARATION** – Surfaces must be free from scale, rust, weld spatter, slag, dirt, lint, grease, oil, and all foreign substances which contaminate the metal and reduce powder adhesion.
- B. APPLICATION** – All metal surfaces shall receive a minimum all over dry film thickness of 2-3 mils for plain gloss coating.
- C. COLOR** – Color shall be Ingersoll-Rand standard beige.
- D. SPECULAR GLOSS** – Gloss as determined by a 60-degree glossimeter shall be 20% ± 5% per ASTM D523.
- E. FLEXIBILITY** – The paint film shall not craze or crack over a 1/4" diameter mandrel per ASTM D522.
- F. ADHESION** – A minimum area of 1/2 square inch shall be cross hatched into 1/16 inch squares by cutting through the paint film with a razor blade or similar sharp instrument. Transparent cellophane tape should be pressed firmly onto the cross hatched area and then removed with a sharp motion in a direction 90° to the painted surface. No chipping, flaking, or paint removal should occur per ASTM D3359 Method B.
- G. HARDNESS** – Panels shall be 2H pencil hardness tested to ASTM D3363.
- H. IMPACT RESISTANCE** – Test to ASTM D2794.
- I. SALT SPRAY** – Panels shall be tested to ASTM B117 and shall show no more than 1/16" creepage from scribe line and no blisters exceeding 1/16" in diameter when exposed to 5 percent salt spray for 500 hours.
- J. HUMIDITY RESISTANCE** – Test to ASTM D2247. Panels exposed to 100% relative humidity for 1000 hours shall show no rusting, no wrinkling, no more than a few number 8 size blisters (ASTM D714), and no more than 20% loss of gloss immediately after exposure.
- K. WEATHERING RESISTANCE** – Panels exposed in a QUV cabinet for 200 hours shall show no more than a 50% loss of gloss and no cracking, chalking, checking, peeling, blistering, rusting, or other signs of film failure.
- L. SOLVENT & CHEMICAL RESISTANCE** – Panels immersed in Ingersoll Rand Branded Coolant for 24 hours shall show no wrinkling, blistering, or peeling. After 24 hours air dry, the coating shall recover its original hardness, color, and gloss.
- M. COLOR STABILITY** – Color shall be stable for continuous exposure to 200°F.