

Heresite P413

Our 50 years of coating history speaks for itself.

In 1964, Heresite was the first company to apply coatings to aluminum-finned, copper-tubed heat exchangers. The Heresite coating became then, and still remains a standard in the industrial coatings industry. We provide the highest quality protective coatings for air conditioning and refrigeration systems that operate in moderate to severely corrosive environments, including both coastal and/or industrial applications. Our modified phenolics have an advantage of dense cross linking and can therefore be applied as a very thin film maintaining stable heat transfer.

We continue our focus on innovation and again have a new story to tell, as we introduce our updated P413

- A high performance modified phenolic coating developed specifically for heat exchangers.
- The flexibility and corrosion resistance of Heresite P413 appreciably increases the service life of your heat exchange equipment.
- It is specially suited for coating light gauge metals in equipment operating in severe corrosive environments.

P413 Specifications

The coil will receive a uniform coating on all surfaces, including fin edges, with P413, a thermoset, modified phenolic coating. Application of P413 will be through multiple coats by immersion or flow coating to a film thickness of approximately 1.0 mil.

P413 provides corrosion protection in a 6,000 hour salt spray test in accordance with ASTM B-117 and humidity resistance of >2,000 hours per ASTM D2247. Chemical resistance is demonstrated via 100+ acetone double-rubs per ASTM 5402. P413 also exhibits superior hardness of 5–6H per ASTM D3363, adhesion of 5B per ASTM B3359 and impact resistance of 160 in./lbs (ASTM D2794). Color shall be brown with gloss of 20–60 — 60 degree. If the coils are to be subjected to direct ultraviolet (UV) exposure, a spray-applied UV-resistant topcoat is an option.

Effective 02/07/17

P413 Typical Properties

Salt Spray: ASTM B-117: 6,000+ hours

Humidity: ASTM D-2247: 2,000+ hours

Solvent Resistance: ASTM-5402: 100 acetone double rubs

Dry film thickness: ~1 mils

Cross-hatch adhesion: ASTM B-3359: 5B

Hardness: ASTM-D3363: 5–6H

Gloss: 20–60 on 60 degree meter (topcoat dependent)

Mandrel: ASTM-D522: >1/4 inch

Impact: ASTM D-2794: 160 lb/inch steel; 40 lb/inch aluminum

pH range (14 day liquid spot test): 2.4–12.6

Temperature cycling (4 hours at –75°C; 4 hours at 190°C): 4B–5B adhesion after 5 cycles

Dry heat resistance (4 hours at 200°C; 20 minutes at 232°C): 4B–5B adhesion after 5 cycles

Simulated sea water resistance: 500 hours

Microchannel Compatible

Abrasion resistance: 30–40 mg loss per 1000 cycles

Meets FDA 175.300 for indirect food contact

Meets MIL Spec: MIL-C-18467, MIL-E-480 and MIL-STD-883 Method 1101

Meets Other Specs: Honeywell MC 7200-01 and GE F50T17

At approximately 2 mils thickness, Thermal Conductivity is less than 1.0 w/mK

Dielectric Strength [ISO 2376:2010(e)]: 286 volts per mil of thickness



NSF Certified – ANSI 51 Certification of Coatings for Food Zone – Non Contact

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