

# 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.

## 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**

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