



nC® ProTherm Safe Touch Coating

Description

Based on sol-gel nanotechnology, the nC® ProTherm Safe Touch coating system is designed for Safe Touch and corrosion passivation. nC® ProTherm Safe Touch has a long lasting lifetime cycle of more than 20 years outdoors, and life-long expectancy indoors.

Because of the ability to reach a high temperature decrease (Delta-T) with a very thin layer of coating, nC® ProTherm Safe Touch offers space saving and cost reducing protection at a high degree of safety and quality. nC® ProTherm Safe Touch is hydrophobic and chemical resistant.

It provides Safe Touch surfaces and is capable of reducing surface temperatures of, for instance, steampipes from 160°C down to 40°C with a 4mm coating. In order to prevent corrosion, the nC® ProTherm Safe Touch coating is equipped with a corrosion passivating primer. The primer is based on surface bonding nanotechnology (sol-gel) and corrosion inhibiting particles that bond into the metal surface of the treated equipment. The system will prevent metals from corroding. It will stop already present corrosion.

nC® ProTherm Safe Touch is applied by brush, roller, knife or spraygun. It can be applied in one layer, between 3mm up to 8 mm and is fast drying. nC® ProTherm Safe Touch is available in all colours.

Benefits

TECHNICAL

- ✓ Delta-T up to 260°C
- ✓ Low weight 0,95 gr/m³
- ✓ Bonds into and with surface chemically, not mechanically
- ✓ Passivates metal against corrosion
- ✓ Hydrophobic, oleophobic surface and behaviour
- ✓ Consumption 1350 gr/m²
- ✓ Performs in temperatures of -90°C up to 750°C
- ✓ Low VOC
- ✓ No hazardous fumes

OPERATIONAL

- ✓ Establishes Safe Touch areas
- ✓ No skin burns
- ✓ Easy application
- ✓ One layer application between 3mm up to 8mm
- ✓ For indoor and outdoor use
- ✓ No spray mist or overspray
- ✓ Fast drying
- ✓ Suits all metals and synthetics
- ✓ Space saving
- ✓ Chemical resistant
- ✓ +15 y of service
- ✓ All colours available

FINANCIAL

- ✓ 25% up to 50% less energy cost
- ✓ 40% up to 60% less application/project cost
- ✓ Low cost per m²
- ✓ Fast Return On Investment
- ✓ First-time-right product, fast application, low impact
- ✓ Easy to repair, no cladding replacement cost
- ✓ Very long service time
- ✓ Safe work means happy employees



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Application instructions

- ✓ Use safety glasses. Protect hands and skin from exposure using gloves and appropriate clothing.
- ✓ Ensure adequate ventilation.
- ✓ Substrate must be free from grease, dirt or dust.
- ✓ Ambient temperature must be between 4° C and 35° C.
- ✓ Do not apply when ambient humidity exceeds 90%.
- ✓ Mix dry component A 12% weight to resin component B 88% weight. Use (industrial) mixer.
- ✓ Mix for at least 3 minutes.
- ✓ Do **NOT** use any thinner.
- ✓ Use knife or airgun/spraygun for application.
- ✓ Film thicknesses can be varied from between 3mm to 8mm WFT.
- ✓ DFT >3mm, <6mm for Safe Touch purposes.
- ✓ DFT >5mm, < 19mm for thermal insulation purposes.
- ✓ Cross layer-application is recommended, wet-in-wet.
- ✓ Measure WFT during application. Product expands up from between 5% to 15% during application.
- ✓ nC® ProTherm Safe Touch will decrease 10% in thickness during curing time.

Table for curing times, at ambient temperature of 20° C and 60% humidity:

Surface	Curing time
All metals, indoor	12 hrs
All metals, outdoor	24 hrs / 48 hrs, depending on temperature and humidity
Product can be exposed to full rain after 12 hours. Full cure after 7 days	

- ✓ Let surface dry in for at least 6 hours before forced drying by means of blower or heater at 55° C max.
- ✓ Surface can be painted over.
- ✓ Clean knives, nozzles with water immediately after any stop.
- ✓ Wash hands and face after every stop.

Limitations

- ✓ Do not use as a final floor covering.
- ✓ Do not use under water.
- ✓ Do not allow application during freezing temperatures.
- ✓ Do not rely on visual measurement for coating thickness. Always use a wet film thickness (WFT) and/or dry film thickness (DFT) gauge in several areas to ensure proper application thickness.



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Logistic info

- ✓ Never use pressure to empty drums.
- ✓ Dispose of contents/container in accordance with local/regional/national/international regulations.
- ✓ nC® ProTherm Safe Touch has a shelf life of 6 months.
- ✓ Store nC® ProTherm Safe Touch between temperatures of 5° Celsius and 35° Celsius.
- ✓ nC® ProTherm Safe Touch is available in 5 kg, 20 kg, 65 kg or 350 kg packaging.
- ✓ Delivery time 1 to 3 weeks
- ✓ UN number: None assigned.
- ✓ UN proper shipping name: None assigned.
- ✓ Transport hazard class(es): None assigned. Product is suitable for air transport.
- ✓ Packing group: None assigned.
- ✓ Environmental hazards: No known environmental hazards.
- ✓ Special precautions for user(s): No known precautions for transport.
- ✓ **It is advised to avoid freezing product.**
- ✓ Guidance on transport in bulk: Transport in bulk according to Annex II of MARPOL 73/78 and the International Bulk Chemical Code (IBC code).

Typical properties

- ✓ Appearance after mixing: Grey yoghurt, thixotropic
- ✓ Odour: Acrylic
- ✓ % Solids: 72%
- ✓ Solvents: None, water 25,85%
- ✓ Density 0,9 g/cm³
- ✓ pH-Value 11 - 12
- ✓ Shore Hardness A = 30 – 40
- ✓ Boilingpoint 100° Celsius
- ✓ Flashpoint 300° Celsius
- ✓ Vapour pressure at 20° Celsius: 23 hPa
- ✓ VOC IE 2010/75 EU: 2,4% (32,4 g/l)