

Ceramic Polymer NK C5-3 is a high-quality 2-component polyester reinforced polyurethane coating with excellent anti corrosive properties. This Top coat provides excellent color stability and mechanical strength. Suitable as DTM coating for all kinds of application in aggressive atmospherical and industrial environments (in compliance with NORSOK M-501).



APPLICATION RANGE

- External coating for
 - Offshore and onshore constructions
 - Tanks and vessels
 - Tubes, pipes and valves
 - All steel structures in contact with sea atmosphere

TECHNICAL INFORMATION

Color	Standard colors (RAL, NCS) Note: To achieve best opacity of topcoat some colours need a special shade of primer. Please ask our technical service for advice.
Gloss	Semi gloss
Volume solids	± 63 volume %
VOC	≤ 340 gr/ltr.
Sea water resistance	NORSOK M-501, Edition 6, System 1
Specific Gravity (Mix)	~ 1.40 (at 20 °C)

FEATURES AND BENEFITS

- Extreme color retention
- Extreme mechanical strength
- Temperature resistance up to 120 °C (dry load)
- Certified according to NORSOK M-501, Edition 6, System 1 (non-splash zone)

APPLICATION DATA

Application methods	Preferably by means of airless or airmix spray equipment. When using brushes, a different film thickness and possibly inferior flow will be achieved.		
Airless spray	Thinner: Ceramic-Polymer NK C5-3 Thinner / Quantity: 0-5 vol. % / Nozzle: 0.013-0.015" / Flow pressure: 140-200 bar / DFT: 80-100 µm		
Airmix	Thinner: Ceramic-Polymer NK C5-3 Thinner / Quantity: 0 vol. % / Nozzle: 0.013-0.015" / Flow pressure: 70-100 bar / DFT: 80-100 µm		
Brush - Roller	Thinner: Ceramic-Polymer NK C5-3 Thinner / Quantity: 0-5 vol. % / DFT: 80 µm		
Airspray	Thinner: Ceramic-Polymer NK C5-3 Thinner / Quantity: 0-5 vol. % Nozzle: 2.0-2.5 mm / Flow pressure: 3-4 bar / DFT: 80-100 µm		
Mixing ratio	4.44 : 1 by weight / 3 : 1 by volume		
Mixing instructions	Mix Part A and Part B intensively, preferably using a mechanical mixing device. The temperature of the mixed product should at least be 10°C during application.		
Potlife	2 hours at 20 °C material temperature - waiting time under continuous pressure may reduce pot life!		
Thinner	The paint can be applied with various spray equipment. The necessary amount of Ceramic-Polymer NK C5-3 Thinner depends on used equipment, application method and temperature of the mixed product. The Thinner should also be used to clean and flush equipment immediately after application.		
Dry film thickness	Standard: 80-100 µm (depends on application process)		

Theoretical Consumption	film thickness per coat: dry	film thickness per coat: wet	kg/m ²	m ² /kg
Please contact Chesterton International technical services for specific system and application advice.	80 µm	127 µm	0.18	5.55
	100 µm	159 µm	0.22	4.5

Practical coverage The performance in practice depends on various circumstances. As a guideline for airless spraying: For large dimensions: 70% of the theoretical coverage. For small dimensions: 50% of the theoretical coverage.

All above values are approximate and may be used as a guideline for specifications. Consumptions vary according to conditions.

SURFACE PREPARATION

The topcoat is applied on prepared and primed steel substrates. The surface has to be dry, clean, load-bearing and free from separating substances such as fats, oils and salts. Within the re-coating interval the topcoat can be applied directly on the primer/coating. If the re-coat time is exceeded, the primed surface has to be grinded or swepted to achieve best possible adhesion of the topcoat. Depending on the type of preparation and the resulting surface roughness the consumption of material may vary.

Abrasive Blast Cleaning	Not applicable; topcoat is applied on primed/coated surface.
Touch up	Touching up of damages or untreated parts at the construction site. Remove grease, oil, dirt etc. using an appropriate cleansing agent. Remove the rust from all mechanical damage with rotating steel wire brushes, sanding discs or steel wire brushes and coarse sandpaper to purity degree St3, in accordance with ISO 8501-1. Smooth the transition of cleansed parts to parts with intact coats of paint by sanding and scraping. After sanding, remove all dust from the entire surface with compressed air which is free of moisture and grease. Then touch up the object with the entire paint system, as described in this paint advice. Touch up light surface damages only with the product of the top coat, as described in the paint advice.

CONDITION DURING APPLICATION

The temperature of the substrate should be at least 3° C above dew point. Keep application area well ventilated during application and drying, in order to reduce evaporated solvents.

CURING TIMES

Substrate temperature	Dust free	Manageable	Recoatable
10 °C	4 hrs.	18 hrs.	16 hrs.
20 °C	1.5 hrs.	10 hrs.	8 hrs.

Dry times: at 55 % RH and a standard dry film thickness of 80 µm. Maximum interval unlimited provided the surface is clean and free of grease and/or oil. At a higher film thickness longer drying times should be taken in account. During drying and curing the relative humidity should remain between 55-90%. The higher the humidity, the faster the curing.

STORAGE AND PACKING

Preferred storage conditions are to keep the containers in a dry and cool area between 5°C and 40°C provided with adequate ventilation. The containers should be sealed tightly.

Packing	6.8 kg kit (5.55 kg Part A + 1.25 kg Part B) + 27.2 kg kit (22.2 kg Part A + 5 kg Part B)
Shelf life:	12 months (in original unopened can)

QUALITY ASSURANCE AND INSPECTION

To ensure a continuous quality of the product, the quality assurance and inspection plan of Chesterton International GmbH has to be considered. Recommendations for qualified test control units are also available.

HEALTH AND SAFETY

Observe the precautionary notices on the container label, and read the Material Safety Data Sheet before use. The product is intended for use by properly qualified professional applicators in industrial conditions. The product is flammable and should be kept away from sparks, open flames, and other sources of ignition. Smoking is prohibited in the application area. Wear suitable respiratory equipment and apply in well ventilated areas. Avoid contact with skin and eyes.

DISCLAIMER

All technical information in this Product Data Sheet is signified as material description and based on laboratory tests and practical experiences under normal conditions. During individual use, actual measured data may vary due to circumstances beyond our control. In particular, the recommendations regarding the application and use require the proper storage and treatment of our products. Due to differences in materials, substrates and real site conditions Chesterton International GmbH does not assume any warranty or liability for application results or fitness for a particular purpose, of any legal relationship whatsoever, neither from this information, nor from any given recommendations, or from any other oral advice. The user of the product must check the product's suitability for the intended application and purpose. Chesterton International GmbH reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our general terms and conditions of sale and delivery. The most recent issue of the Product Data Sheet has to be considered, please ask always for the current version.