



SISTEMA TRIPLEX®

OVERCOAT SYSTEM FOR STEELWORKS PLACED IN CORROSION CATEGORY C2 TO C4



1. Overview

SISTEMA TRIPLEX® is an overcoat system based on principles regulating two industrial processes, hot dip galvanization and powder coating, with a third technological component that enhances the performance synergy of each single treatment.

The powder coating, which is part of the **SISTEMA TRIPLEX®**, has been specifically formulated to guarantee the best results in corrosion category C2–C3–C4 with durability H (over 15 years) in accordance with UNI EN ISO 12944.

2. Hot Dip Galvanizing

Hot Dip Galvanizing in accordance with **UNI EN ISO 1461:2009** made in **zinc bath class 1** in accordance to **EUR 24286 EN : 2010**.

3. Powder Coating

Powder coating in accordance with **UNI EN 13438**, made with powder **TGIC free Qualicoat 1 or superior, formulated for hot dip galvanizing support**.

Total thickness over 70 micron (polyester powder coating).

Powder coating process:

- a) **MECHANICAL PREPARATION** by scouring the surface of the steelworks with fine grained abrasives aiming at smoothing out any irregularities found on the zinc coating.
- b) **DEGREASING AND SURFACE CONVERSION** with a nanoceramic process: a treatment that allows a greatly stable and compact inorganic layer to form in order to guarantee a very high adhesive performance of the paint.
- c) **POWDER APPLICATION:** the process continues by electroplating the powder paint (of the colour requested) in an automated compartment fitted with stations for any possible manual touch-ups needed.
- d) **POLYMERIZATION:** (Baking). Hot air kiln baking, at 180–200C degrees, follows the powder application stage. During this stage the materials remain in the kiln until the powder is polymerized.

4. Durabilità totale del sistema protettivo

Total durability over **100 years** [EPD data calculated in accordance with UNI EN ISO 12944 e UNI EN ISO 14713 in corrosion category C3].

First maintenance at rusting grade Ri3 (ISO 4628–3).

5. Quality and Sustainability

SISTEMA TRIPLEX® is made by Nord Zinc spa. All the plants are managed by Integrated Management System: Quality (ISO 9001), Environmental (ISO 14001), Safety (OHSAS 18001).

The production site is registered EMAS (Environmental Management Audit Scheme).

SISTEMA TRIPLEX® has obtained Environmental Product Declaration EPD.

6. Documents

- Conformity Declaration in accordance with ISO 17050–1
- Use and Maintenance Manual

7. Insurance Guarantee (on request)

SISTEMA TRIPLEX® could be supply with 10 years insurance guarantee.

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