



Powder Coating over Zinga	Z19
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Scope:

Material:	Carbon steel	Exposure category	C1 – C4
Environment:	Inland exposures	Standard	ISO 12944-2

Surface Preparation:

Surface Pre-preparation:	Steam Clean @ 150 bar (min) @ 80°C or High Pressure Fresh Water Wash @ 150 bar (min)		
Surface Cleanliness:	Sa 2.5 using grit, slurry or vapour blasting.	ISO 8501-1 / ISO 8501-2	
Surface Profile:	Rz 40 – 60µm (to be used on 1.0 mm section or less)	ISO 8503-2	
Surface Roughness:	Ra 12.5 µm	ISO 8503-2	
Surface salts	N/A	ISO 8502-6	

System: Part of structure – Exposure category (ZINGA unique)

Product	Application Type	Volume Solids (%)	Required DFT (µm)	Theoretical Spreading Rate (m ² /kg)	Application Method	Thinner	Indicative Overcoat Time (Hrs)		
							10°C	15°C	20°C
ZINGA	S/C + F/C	58	40 - 60	3.6 – 5.3	S	Zingasolv	3.0	1.5	1.0
Powder	S/C + F/C	58	60 - 70	As per TDS	E	N/A	N/A	N/A	N/A

Application Type Key: **M/C** = Mist Coat, **F/C** = Full Coat, **S/C** = Stripe Coat

Application Method Key: **A** = Airless Spray, **S** = Conventional Spray, **R** = Roller, **B** = Brush **E** = Electrostatic Spray



1. General:

- a) Please use this specification in conjunction with the appropriate Technical Data Sheets and MSDS.
- b) Application Conditions: please see the Technical Data Sheet for details of minimum temperatures, humidity etc. For optimum performance the surface should be completely dry and the Sa2.5 cleanliness standard strictly adhered to on the lower column sections.
- c) Zinga is not a paint and does not contain any silicone-based flow agents, and hence will never cause fish-eyes in cured powders.
- d) Drying times will be affected by temperatures, humidity and ventilation conditions.
- e) Measurements of DFT should only be taken when the zinc coating is fully cured or immediately after it has been de-gassed.

2. Blast-cleaning:

- a) All sharp edges, where possible, must be radiused to a minimum of 2 - 3mm and all drilled holes should be chamfered or countersunk. This is considered as 'best practice' on all steelwork.
- b) Attention must be paid to all welds, inside angles, drilled-hole circumferences, brackets and fittings plus all sharp edges.
- c) Steel sections of 1.0 mm or below will use the blast-profile range as shown in the table on page 1.
- d) Where the steel section is 2.0 mm or above, the usual blast-profile range of Rz 50 - 70µm will apply.

3. De-dusting:

- a) All blast-cleaned surfaces must be well blown-down or (preferably) vacuumed before proceeding with the ZINGA application process.
- b) The de-dusting must produce a result less than, or equal to, cleanliness class 2 (ISO 8502-3) or below on each blast-cleaned piece.
- c) Where the surfaces are vapour-blasted, the steelwork must be allowed to dry thoroughly and must be de-dusted as per the above result in (b) before the application of the ZINGA.



4. Zinga coating:

- a. The steelwork can now be fully coated with Zinga as normal.
- b. A maximum film-thickness range of 40 - 60um DFT for the Zinga must never be exceeded.
- c. All zingatised steelwork must be allowed to cool down to 50°C after degassing, and before any powder is applied.
- d. The Zinga layer can be force-dried in an oven with a short flash-off period beforehand. Conveyor ovens do not require this step.
- e. The coated steel can be put through the oven at the normal baking temperature and scheduled-time of the powder coat.

5. Powder coating:

- a. Where any doubt exists, it is always advisable to powder-coat a small test-area before continuing with the project.
- b. It is recommended to only use polyester powders.
- c. Steelwork that has been allowed to cool down to ambient temperatures must be de-gassed again before being powder-coated.
- d. Very small or lightweight components with steel of <1.0mm can be phosphated instead of being blast-cleaned, and they can then be zingatised as normal. Minimum phosphating weight is 16g/m².
- e. Please consult with the Zinga technical office with before beginning any phosphating process, as this is a specific process.



6. Final notes:

- a. The application of all the products mentioned in these documents must be done in strict accordance with the appropriate manufacturer's instructions and specifications. No liability can be accepted for any failures resulting from the incorrect application of any part of the recommended coating system.
- b. The coverage rates shown are theoretical and are for guideline purposes only.
- c. The information on these sheets is given to the best of our knowledge based on practical field experience and testing. However, as Zinga is often used under conditions beyond our control, we cannot guarantee anything other than the quality of the product itself.
- d. Before any work is carried out, the Zingametall technical department must be consulted in order to clarify any points or concerns raised in this specification document or in any of the associated data, MSDS, application and any other relevant documents.