

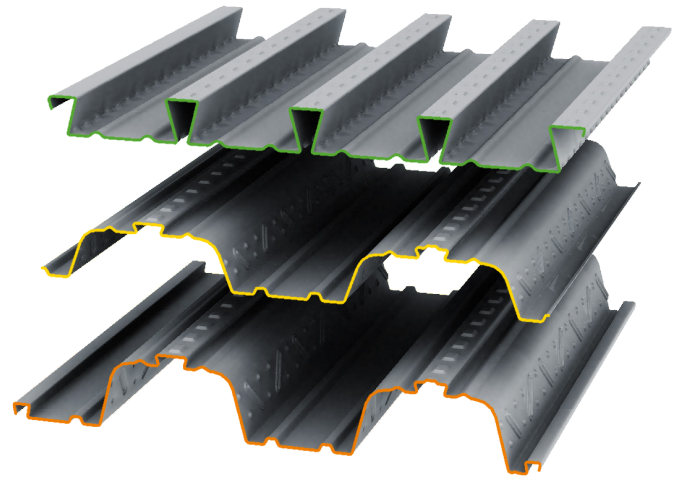
HIGH DURABILITY^{HD} floor deck profiles

What is HIGH DURABILITY^{HD}?

Our HD products provide the same structural capacity as our standard floor deck range but come with an enhanced metallic coating with a unique composition of Zinc, Aluminium and Magnesium.

Benefits using HD:-

- Improved corrosion resistance with similar coating thickness
- Suitable for aggressive environments (e.g. chloride and highly alkaline)
- Excellent cut-edge protection (self healing effect)



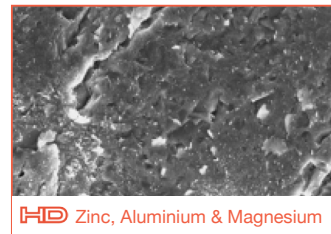
R51^{HD}
HIGH DURABILITY

TR60^{HD}
HIGH DURABILITY

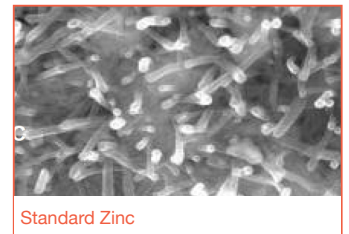
TR80^{HD}
HIGH DURABILITY

The difference in coating

The dense and compact nature of the enhanced metallic coating used on the HD products provides superior corrosion resistance compared to the more porous structure provided by our standard Hot Dip Galvanised Z275 coating.



HD Zinc, Aluminium & Magnesium



Standard Zinc

Corrosion behaviour - Salt spray test

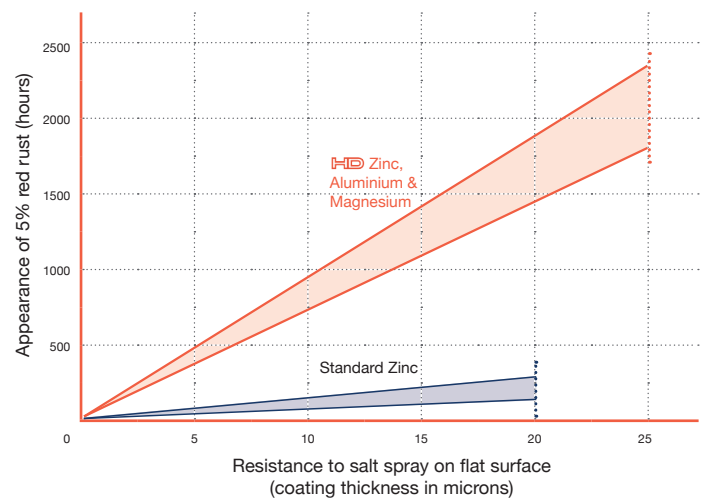
These images and associated graph show comparison between the two coating options under salt spray test (highly chloride environment) carried out in the lab.



Standard Zinc after 6 weeks



HD after 34 weeks



Where could HD be used?

- External locations
- Car Parks
- Areas identified as aggressive environments (i.e. category C2-C3 or above)



HD Product Specification

Coating weight	-	310 g/m ² (total for both sides)
Coating thickness	-	25µm per side
Structural steel grade	-	S350 (350 N/mm ²)

Composite beams

Thru' deck stud welding with HD

- Suitability of stud welding tested in accordance with BS EN ISO 14555.
- Weld settings (WPS) for welding current, time, protrusion and lift available.
- Un-painted top flanges still required (as always).

Un-painted top flanges not suitable for the environment?

It might be worth considering pre-studded beams (painted) with single span deck sheets and crushed ends.



Need more information?

Contact our Technical team on

01202 718 898 or technical@smdltd.co.uk

All test data contained in this document refers to Magnelis® coating supplied by ArcelorMittal