

F143-13 28E ARCTEC Coating

### **Metallisation's 28E ARCTEC Non-slip Coating**

Metallisation's durable non-slip coating, 28E ARCTEC, is a reinforced aluminium based non-slip coating. It is ideal for use in pedestrian and industrial flooring areas, bridge decks, escalators, steel floors and panels across a range of diverse industries.



Untreated steel surfaces can become very slippery, especially in wet conditions, and are prone to corrosion. To ensure safe walking and industrial operating conditions, vital to personal safety and corporate productivity, 28E ARCTEC coating provides a durable non-slip anti corrosion coating.

Traditionally, steel structures are hot dip galvanised, or painted, to protect against corrosion. The disadvantage of hot dip galvanising is that the surface can become slippery and it does not easily accept paint without the need for special primers. Painting this type of surface, which is sometimes applied with grit inclusions, also has its disadvantages. The surfaces can degrade quickly in heavy use, resulting in corrosion and an increased slip hazard.

Many large steel structures, including oil platforms, refineries and bridges, have been routinely protected against corrosion by thermal spray aluminium (TSA), zinc or an alloy of the two. While providing unrivalled corrosion protection in very aggressive corrosive environments, pure TSA is not durable enough to prevent long term wear on floor plates. Ideally, steel structures need a durable coating that protects against both slip and corrosion and that's exactly what the Metallisation 28E ARCTEC coating does.

28E ARCTEC coating is a thermally sprayed coating that can be applied with a rough texture and has excellent non-slip properties, while being extremely hard and resistant to wear. The coating provides:

- ❑ A suitable level of grip, to avoid personal slips or industrial skidding
- ❑ Comparable corrosion protection to aluminium, as used in aggressive environments
- ❑ Easy application by a long-standing process, covered by international standards

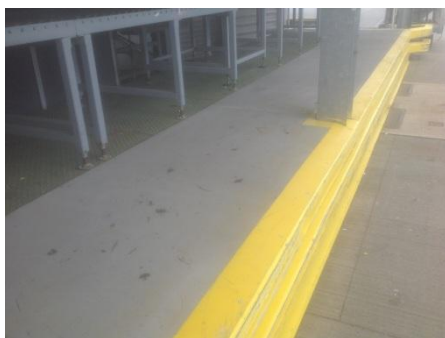
The resultant coating is corrosion resistant and because of its durability, site owners can be confident that once applied, they can forget about rust or slipping for many years.



28E ARCTEC is applied using the Metallisation arcspray process with the ARC 140 system. In the arcspray process the raw material, in the form of a pair of metallic wires, is melted by an electric arc. This molten material is atomised by a cone of compressed air and propelled towards the work piece. Upon contact, the particles flatten onto the surface, freeze and mechanically bond,

firstly onto the roughened substrate and then onto each other as the coating thickness is increased. Coating thickness can range from around 50 microns up to several hundred microns or even millimetres for some metals. Typically, metal sprayed corrosion protection coatings vary from 100 to 350 microns.

There have been a number of recent successes with 28E ARCTEC and there are many trials being conducted to evaluate the effectiveness of the coating against more traditional non-slip surfaces. A local UK Council has opted for 28E to coat 150 of its manhole covers. The covers were metal sprayed with 100 microns of aluminium before being coated with 300 microns of 28E. This is the standard specification for external applications, offering unsurpassed corrosion resistance and durable grip to ferrous items.



28E ARCTEC has also been used on a pedestrian loading platform at a UK airport, as part of its drive to prevent trips and slips in the workplace. The airport has chosen 28E to replace the current chequer plate surface to improve grip, particularly in the wet. As this is also an external application the platform was arcsprayed with 100 microns of aluminium before being coated with 28E.

There are two significant trials of 28E ARCTEC currently being undertaken around the UK. The first is on a very busy ferry terminal roadway. 28E is being trialled to check its durability and wear for this arduous application. To avoid disruption to the ferry service and its passengers, the coating was applied during the early hours and is now being tested on a daily basis.



The second trial of 28E is being undertaken at an industrial site where it is being considered as a replacement for the traditional GRP non-slip plates. 300 microns of 28E has been applied to both the steps up to the access platforms and the platforms themselves. Safety is paramount in this instance due to the size and height of the access platforms. The risk of slipping must be reduced to an absolute minimum, making 28E an ideal solution. As this is an internal application the aluminium base is not required, as corrosion is not an issue.

28E ARCTEC is also not just used on steel substrates. Aluminium manhole covers for roadways in New Zealand are also being trialled with the coating just for its grip and wear properties.

For more information on the 28E ARCTEC wire and coating, contact Stuart Milton, Sales and Marketing Manager, +44 (0) 1384 252 464 or visit [www.metallisation.com](http://www.metallisation.com)