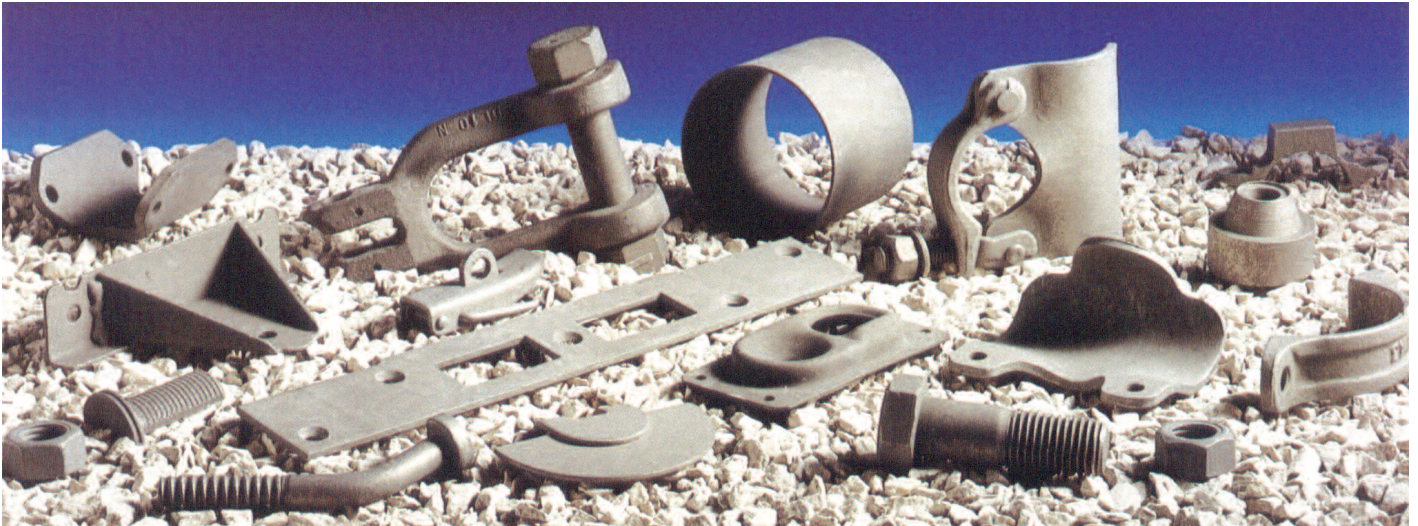


Sherardizing

Sherardizing is a diffusion process in which articles are heated in the presence of zinc dust. The process is normally carried out in a slowly rotating closed container at temperatures ranging from 320-500°C.



The resultant zinc/iron alloyed coating is subsequently zinc phosphated or chromated, resulting in a clean, passivated, matt grey surface. The coating closely follows the contours of the base material and uniform coatings are produced on articles, including those of intricate shapes. Carbon steels, low alloy steels, sintered steels, malleable grey iron and cast iron are suitable for sherardizing. The process does not give rise to hydrogen embrittlement.

Main Benefits

- Long term corrosion protection
- Coating thickness range available 15-80µm
- Salt spray resistance sherardizing - 96 hours
sherardizing 2000 - 500 hours
- Damage resistant
- Uniform coating

After Treatments

In addition to the standard passivated sherardized surface, stains, paints, special lubricants, sealants or organic coatings (duplex) may be applied to enhance the corrosion resistance and/or decorative appearance, or to regulate the coefficient of friction. A further enhancement of the coating is the Sherardizing 2000 system offering in excess of 500 hours salt spray resistance.



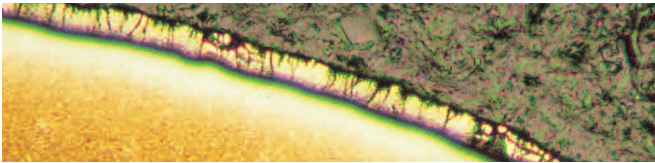
Coating Specification

Coating Thickness Specification BS 4921

Class of Coating	Minimum Local Coating Thickness (microns)
Class 1	30
Class 2	15

Class 1 coating should be specified for outdoor applications, but Class 2 coatings may be specified where the environment is less aggressive. Class 2 coatings are suitable for normal applications.

Other coating thickness can be specified, e.g. a 50 micron coating may be specified for a heavy duty application in a corrosive environment.



Microsection of a Sherardized thread profile showing how closely the coating follows the contours of the base material, including minor surface irregularities.



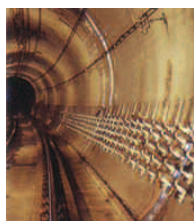
Kansai Airport, Japan.



Mining Roof Supports



London Ring Main



Mass Transit Hangers

Properties

- Long term sacrificial environmental protection.
- Uniform diffused zinc/iron alloy coating.
- Protection of irregularly shaped and recessed components.
- Relatively high degree of wear and abrasion resistance.
- No hydrogen embrittlement.
- Matt grey textured surface, suitable for the application of paint systems.
- Sacrificial.
- Relatively low processing temperature.
- Dry process suitable for sintered material.

Applications

- Cable hooks for supporting signalling and telecommunication cables along walls of the mass Transit Railway in Hong Kong.
- Metal fittings and fasteners used in the construction of segmented tunnel linings for London ring main, Jubilee underground line & Channel Tunnel.
- Rubber bonding - anti roll bar link, Ford Motor Company.
- Mining Industry - roof support hinge pins.
- Submarine telecommunications systems - bend limiters, universal joints.
- Rail track fittings.

Specification/Approvals

BS4921:1988 - NF A91-460 - BS7371 Part 8 - BS EN 13811

Bodycote Metallurgical Coatings Ltd.

Shakespeare Street

Wolverhampton

WV1 3LR

Tel: +44 (0) 1902 452915

Fax: +44 (0) 1902 352917

Email: sales.bmc@bodycote.com

www.bodycote.com

