MOSS METAL FINISHING

Units 9 & 14 Brow Mills Industrial Estate
Brighouse Road,
Hipperholme
West Yorkshire
HX3 8EF

Tel: 01422 203 527
Fax: 01422 205 857
Email: Info@moss-metal-finishing.co.uk
Web: www.moss-metal-finishing.co.uk

Hot Chemical Blacking/Black Oxide Coating

Black oxide coating or hot chemical blacking as it is also known is a chemical conversion coating. Unlike other metal finishings such as zinc plating where the coating is applied to the surface of the steel black oxide coating is the result of a chemical reaction between the ferrous metal and the oxidizing salts used in the black oxide solution.

This means that where other finishes add to the surface of the metal and increase the dimensions causing for allowances to be made during manufacture, black oxide coating has a negligible effect on the dimensional tolerances of the parts. This is of great benefit where tolerances are quite critical such as screw threads, bearing fits, threaded holes or simply just internal machine parts.

Black Oxide Coating offers a small corrosion resistance which is enhanced by the post treatment layer of dewatering oil that we apply. The main benefits of this finish are anti galling and enhanced lubricity for internal machine parts that contact. It also reflects less light than non coated parts which can avoid issues with glare whilst working under bright lights.

Materials

The most common materials we Black Oxide coat onto are Carbon Steels, Unalloyed and Alloy Steels, unfortunately we are unable to coat onto Stainless Steels

Useful Information

Where parts have been hardened or dependant upon the type of alloy used the finished coating can have a slightly Red or slightly Green tinge to it although this is uncommon. Highly polished parts will still have a glossy finish after chemical blacking, dull parts will have a more dull finish while still keeping a sheen.

De-Embrittling

Where required we can de-embrittle before applying the black oxide coating, this is usually required for socket head cap screws, self tapping screw, spring washers or other hardened parts that require the previous coating stripping off in acid.