



Why would black oxide finish be used?

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There are many advantages to using a black oxide finish for metal parts. Black oxide is a chemical surface treatment; not a coating or plating process where material is added to the surface that may eventually chip or peel away. Because black oxide is a conversion process, it allows for dimensional and surface finish stability.

Corrosion resistance is marginally improved for surfaces that have been treated with black oxide. This may be attributed to the increased absorption of oils and waxes on a black oxide surface. If, however, corrosion resistance is critical, there are other processes or materials that should be considered instead of relying solely on a black oxide coating.

The biggest impact of black oxide is that the finish reduces glare, brightness, and reflection. This characteristic is very important in many military applications where stealth may be desired. Aside from reduced glare and brightness, black oxide also offers the aesthetic appeal of a black surface, which may be the primary reason that people prefer a black oxide finish.

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