

Black Oxidizing Of Steel

This 'room temperature' Black Oxidizing system is a new technology in the blackening process, often known as 'Parkerizing'. Developed by a company specializing in hot blackening processes to eliminate the hazards and fumes from their process, this method is rapidly gaining favor with all types of metal finishers. Although Black Oxide does not provide the degree of protection given by plating, it does serve an important role in metal finishing. Ideally suited for nuts and bolts, where any increase in dimension would ruin the part, this process is used in many vehicle restoration applications. The system is also ideal for hand tools, subject to knocking, where a plated surface would simply chip off.

To Make The Black Oxide Solution

1. Pour 9 pints distilled water into a plastic container.
2. Add 1 pint black oxide concentrate (blue liquid).
3. (For larger quantities, keep the water and concentrate in the same ratio)
4. Leave for 30 minutes to age.

Using The Black Oxide Kit

1. Soak the part in SP DEGREASER for at least 5 minutes. Rinse in fresh water, or if not available, a good hot detergent solution.
2. Remove all rust using PICKLE # 1 or sand blast. Rinse in fresh water.
3. Immerse the part in the BLACK OXIDE CONCENTRATE for between 2-10 minutes. If the part is not suitably blackened, lightly brush with a soapy steel wool pad, rinse and re-immerses. As an alternative, you may wish to Electro-strip the surface for 20 seconds. See the section on Electro-stripping. A brown smut over the part is indicative of being immersed for too long. Clean off the smut with steel wool etc. and re-immerses for a shorter period.
4. Dip or brush the part in PENETRATING SEALANT ensuring it is thoroughly saturated. Soak for approx. 5 minutes. Shake off excess material and allow to dry. Both solutions may be used repeatedly.

To speed up the blackening process, warm the BLACK OXIDE CONCENTRATE to approx. 140 deg. f. The degree of blackening will vary depending on the type of steel and the time immersed. The BLACK OXIDE CONCENTRATE forms a whitish sludge, which sinks to the bottom of the tank. This is harmless to the process, but may be removed by periodically straining through coffee filters. The rich black color will not occur until you seal the surface with PENETRATING SEALANT. Oil the part in the normal manner using the PENETRATING SEALANT. Alternatively, you may lacquer the part with a flat clear lacquer. For a more durable finish, plate with Copy Cad or Zinc, then use the Black Chromate process. This does add dimensional thickness to the part.