

Black Oxide Coating



COTEC has various surface treatment technologies and the company concentrates on products development and quality control to develop various surface treatment items



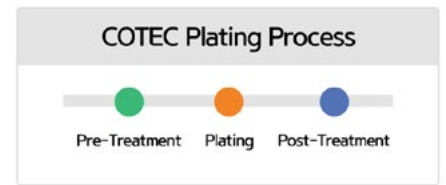
Production items and applications

Department / Material		Defence, Automobile parts, Machinery for general industries / Fe	
Usage		Proper for moving parts which should not have any dimensional changes after coating Used for decoration applications or reducing the light reflection	
Applied specifications	National defense 0115-0023 (Yeon) MIL-C-13924 MIL-F-495 MIL-DTL-13924 KS D ISO 11408	Thickness	less than 0.2µm~5µm
		Corrosion resistance	For 96 hours (Applied to 300 series corrosion resistant steel)
		Oxalic acid test	Black or blackish brown is to be kept for Class 1, 2, and 3 for 30 seconds to 90 minutes
		Smut test	Uniform black (No reddish brown or green smut)
Acceptance		External	
		Internal	HYUNDAE WIA, DOOWON, KAI, ADD

Equipment condition

COTEC	600 × 600 × 600 mm (3 Units)
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Our technologies and their applications

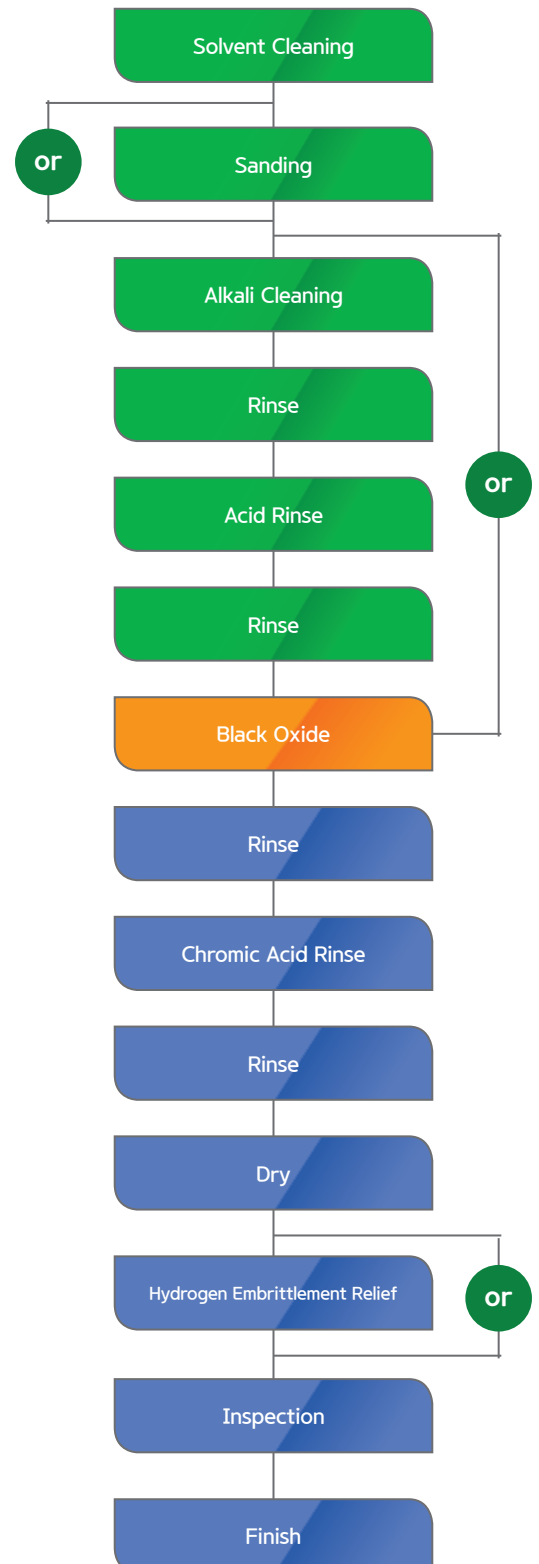
Characteristic

- It has good adhesion and resistant to shock or abrasiveness.
- Almost no dimensional change making it proper for rust prevention for precision parts.
- It is a thin film of 0.2 - 0.5 μ m.
- The coating is stable Fe₃O₄ (Similar to FeO-Fe₂O₃).
- It can withstand temperatures up to 400°C.
- Due to large quantities of inherit cracks, this process requires rust preventive coatings.

Applicable parts

- Defense equipment, Commercial (Except machine tools)

Process



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