

ARCTEC® I COBALT ALLOY

Conforms to AWS A5.13 ECoCr-C



a quality welding alloy

GENERAL CHARACTERISTICS:

ARCTEC® I Cobalt is a cobalt-base alloy containing chromium and tungsten. It provides a hard overlay that has a low coefficient of friction and acquires a high polish in service. The deposit has high resistance to abrasion, heat and corrosion with excellent metal to metal wear resistance. Elevated temperature hardness is an outstanding property of cobalt-base alloys. Many surfacing alloys are softened permanently by heating to elevated temperatures but the cobalt-base alloys are an exception. While they do exhibit lower hardness when hot, they return to approximately their original hardness upon cooling and can be considered immune to tempering. This alloy is not intended for use in applications where resistance to impact is a major consideration. Available in flux coated electrodes and bare rods.

APPLICATIONS:

ARCTEC® I Cobalt Alloy is the harder of the cobalt alloys and is recommended for applications requiring high abrasion and corrosion resistance at elevated temperatures. Used for surfacing a wide variety of machinery in cement plants, coke and gas plants, steel mills, power plants and brick and tile plants..

WELDING PROCEDURE:

Clean weld area free from dirt, oil, grease, rust and other contaminants. Select lowest amperage possible. Maintain short to medium arc with electrode vertical to workpiece. Preheat heavy section to approximately 550°F (290°C).

MECHANICAL PROPERTIES:

Typical Hardness Values

Oxyfuel Gas Welded:	48-58 RC
Arc Welded:	43-58 RC

Please Note: Lower hardness values can be expected in single layer deposits due to dilution with base metal.

OPERATING PARAMETERS:

WELDING PROCESS: SMAW or OAW

POLARITY: DC Reverse

Recommended Amperage:

Diameter	3.25mm 1/8"	4.00mm 5/32"	5.00mm 3/16"
Amperage	70-90	100-120	130-150

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