

ARCTEC® 6 COBALT ALLOY

Conforms to AWS A5.13 ECoCr-A



a quality welding alloy

GENERAL CHARACTERISTICS:

ARCTEC® 6 Cobalt is a cobalt-base alloy containing chromium and tungsten. This alloy is the softer of the cobalt alloys and therefore provides a tough hardfacing material that is resistant to heat, corrosion and oxidation. The coefficient of friction is low and the deposit acquires a high polish in service. 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. Available in flux coated electrodes and bare rods.

APPLICATIONS:

ARCTEC® 6 Cobalt Alloy is recommended for applications requiring good resistance to heat, moderate impact, corrosion and oxidation. This alloy is extensively used for surfacing engine valves, valve seats, pump shafts, valve trim in steam engines and on parts subject to corrosion and erosion. Also suitable for overlaying hot-work punches, dies and similar parts.

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:	38-47 RC
Arc Welded:	23-47 RC

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

OPERATING PARAMETERS:

WELDING PROCESS: SMAW, GTAW 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

CALGARY FAX:(403)-250-7682	EDMONTON: (780)-484-4896	VANCOUVER: (604)-596-2940	WINNIPEG: (204)-663-7955
PHONE:(403)-250-9355	(780)-484-3304	(604)-596-6207	(204)-663-9182

The seller makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, except as expressly stated in seller's contract, delivery slip or invoice form. Technical data and suggested application are provided to assist you in making your own evaluations and decisions and should not be interpreted as expressed or implied warranties. Mechanical properties are typical or average values obtained by testing and comparing many heats of the same alloys. Minimum and maximum values are noted accordingly and are not intended for specific purposes.

Subject to change without notice

OHO011200/102-105/2