

AMERARC™ COCR COBALT CHROMIUM TUNGSTEN ELECTRODES



DESCRIPTION

The AMERARC COCR Electrodes are a special purpose, cobalt-chromium-tungsten alloy which provides superior resistance to abrasion, erosion, corrosion and impact at high as well as normal temperatures. The alloy maintains a high degree of the original room temperature hardness at elevated temperatures. For example, the hardness at 600°C (1100°F) is RC 33 or 310 HBN compared to RC 37-42/345-390 HBN at room temperature. The deposited metal can be machined using carbide tools and can be finished to a very high polish, which is especially beneficial for cam followers (tappets), shifter forks and rockers. The high chromium content of the alloy provides excellent corrosion and oxidation resistance over a wide temperature range.

AMERARC COCR Electrodes can be applied using AC or DC (+). The metal core is fully alloyed--the coating contains no elements intended to become a part of the weld deposit. Therefore, the desired weld metal alloy will be assured even if the coating is chipped. The alloy is well suited to a wide variety of hardfacing applications and bonds well with weld-able alloy steels including stainless steel.

APPLICATIONS

AMERARC COCR Electrodes are especially well suited for repairing/refacing engine valves and valve seats, pump rotors and corrosive fluid valve elements. It is also recommended for food-handling machinery and various types of chemical apparatus, such as valves and valve seats. AMERARC COCR Electrodes are effective for repairing or building up cams and cam followers, actuators and other precision components subject to severe wear.

PROCEDURE

Remove all scale and oxidation from the surface to be repaired or refaced. Grind out all cracks without overheating the surface. Repair any deep cracks or gouges with AMERARC LH electrode. Be sure to remove all slag. Preheat the part to be repaired to 300°C (575° F). Use the TEMPILSTIK¹ temperature indicating crayon included in the electrode package to verify the temperature. Use a short arc with the minimum current required to maintain a stable arc, preferably with no weave. Hold the electrode perpendicular to the surface. Allow sufficient time between passes for the work piece to cool to near the original preheat temperature. Remove all slag between passes and at the end of the weld. Slowly cool the completed repair by covering with a welding blanket or burying in dry sand. Do not leave the repair on a cool metal surface. The finished weld may be machined with tungsten carbide tools.



AMERARC COCR Electrodes

WHAT IS PLASMA CUTTING?

AMERARC™ COCR electrodes conform to the following specifications:

WS A5.13:	E CoCr - A
IN 8555:	E 20-UM-45-CRSTZ

Physical Properties:	
Tensile Strength:	890 N/MM ²
Hardness at Room Temperature:	R _c 37-42/HBN 344-390
Hardness at 600°C (1112° F):	R _c 33/HBN 310

Deposit Composition:	
Carbon	1.0%
Iron	3 - 5%
Chromium	28 - 32%
Manganese	2%
Nickel	3%
Silicon	2%
Molybdenum	1.5%
Cobalt	Bal.
Tungsten	4 - 6%

 **Contact your Drew Marine representative for more information**

HOW TO ORDER

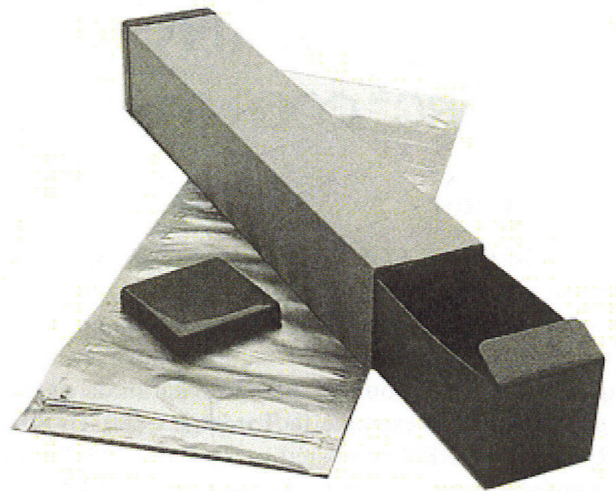
AMERARC COCR Electrodes are available in the following packages:

PCN	Description	Kg/Package
814013	3.25mm x 350mm	2.2 Kg
814021	4.0mm x 350mm	2.2 Kg

PACKAGING

The AMERARC COCR Electrodes are placed in a cardboard tray that is then vacuum sealed in a reclosable composite foil pouch. The pouch is packed in a square or rectangular high density, multi-layer, cardboard box fitted with steel end caps at each end. The package is shrink-wrapped with plastic. All components of the package can be easily incinerated.

AMERARC COCR Electrodes are packaged in two (2) 1.1 kg pouches per box typically providing a sealed package for each repair.



AMERARC COCR Electrode Packaging



Contact your Drew Marine representative for more information

Drew Marine maintains Safety Data Sheets on all of its products. These documents contain health and safety information for the development of appropriate product handling procedures to protect your employees. Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Drew Marine products.



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