CerAnode™ Technologies International

CerAnode™ EMMO Canister Anode

Supplemental Data Sheet with Specification

CerAnode Part Number	CAC-1852
Description	CAC-604-5C/FW20YR-CPR-3/4x48-10FT-8AWG-HALAR -- CerAnode EMMO Center Connect Single Tubular anode, 3/4" Dia x 48" long, rated at 5 Amps for 20 years in coke or freshwater, PREPACKAGED in a 4" Dia x 60" Canister containing Loresco SC-3 Coke, with a 10Ft lead using 8AWG Halar20/HMWPE65 cable.
Anode Physical Size	3/4” x 48”
Canister Size	4” x 60”
Anode Weight (without cable)	4 lbs. (1.8 kg)
Anode Current Design Rating	5 Amps in Coke or Freshwater for 20 years
Substrate Material	ASTM B338 (note 1), Commercially Pure Titanium Grade II (note 2)
Catalyst	CC-TIR-EMMO, Enhanced Mixed Metal Oxide (Ir-Ta-Ti Oxides)
Catalyst Deposition Method	Arc-Plasma Spray Thermal Processing (note 3)
Dissolution Rate	<1 - 10 mg / amp-yr (electrolyte dependent)
Coating Adhesion Strength to Titanium Substrate	Minimum of 50 MPa
Cable Tail Conductor Material	Soft Drawn Single-Conductor, 7 Stranded Copper
Cable Size & Type	8AWG Halar20/HMWPE65 Cable
Anode-to-Cable Connection Method	Tungsten Inert Gas Weld / Internal Circumferential 200 Ton Swage
Anode-to-Cable Resistance	Tested using a 4-wire Kelvin Bridge statistically analyzed to assure max allowable resistance of <100 Micro Ohms
Anode-to-Cable Seal Method	CerAnode MultiSeal™ (note 4)
Testing	Electrochemical Endurance Testing-compared to a historical curve statistical base. Test methodology based on NACE Test Method TM0108-2012.
	X-Ray Scan-Using a XL3T900S Model Analyzer, quantifies EMMO precious metal coating catalyst and its ratio to other significant elements comprising coating thickness.
Note 1: ASTM B348 titanium specification is for the billet which is used to manufacture the tubing to ASTM B338.	
Note 2: Meets Grade 1 chemical purity and has physical strength of Grade 2	
Note 3: The arc-plasma spray thermal coating process gives an Enhanced Mixed Metal Oxide Coating compared to standard MMO coatings resulting in 3 distinct advantages: greater abrasion resistance ; greater coating mechanical stability; greater coating thickness.	
Note 4: Multi-Layer seals provide moisture proof connection with excellent resistance against acids & chlorine gas.	

CerAnode Technologies complies with “BUY AMERICAN ACT”

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(see next page for specifying custom sizes)

How to Specify the CerAnode™ Canister Anode

CUSTOMIZING THE SPECIFICATIONS

Typical part number = CAC-604-5C/FW20YR-200FT-8AWG-HALAR-CXP

CAC	= Product Designator for **CerAnode™**'s Anode+Canister
604	= 60 Inch Can, 4 Inches in Diameter
10C/FW50YR	= Rated Current Capacity is 5 Ampere for 20 Years
200FT	= Cable is 200 Feet Long
8AWG	= Cable Size is 8AWG
HALAR	= Cable Insulation is Halar20/HMWPE65 Cable
CXP	= Cable connection is Cross Linked Polyolefin

Part Number Modifications for Alternate Specifications:

Can Length and Diameter such as 604 (60 inch long and 4 inches in diameter)
Cable Lengths such as 200FT for 200 feet.
Cable Sizes 8AWG for 8 awg.
Insulation Types such as Halar/ HMWPE for dual extruded Halar layer + HMWPE layer.
Connection Type: Specify X Linked Polyolefin(CXP) or X Linked Fluoropolymer (CXF).

It is important to specify a CXF option (a connection made with a cross linked fluoropolymer) for applications where chlorides may be present.

It is also important to specify Halar or Kynar cable insulation where chlorides may be present.

WHEN IN DOUBT ABOUT SPECIFICATIONS, CONSULT *CerAnode™*.

CerAnode™ is not a Cathodic Protection Engineering Company and does not take ultimate responsibility for any particular customer design, but we do offer free educated suggestions which are often quite valuable when specifying anodes to best suit your application. If high quality anodes are specified properly for a particular application, they will provide the performance anticipated. We would like to help our customers avoid specification-related problems whenever possible.