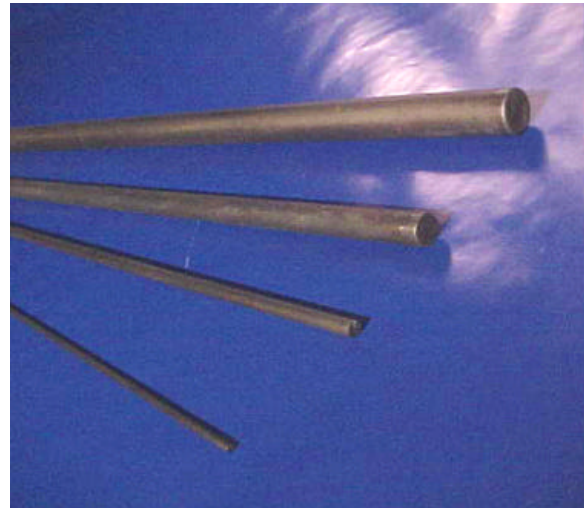


Mixed Metal Oxide Solid Rod Anodes

Lightweight And Easy To Install

The use of large and heavy impressed-current anodes has traditionally been thought to be the only method for protecting numerous types of buried and submerged structures. However, with the development of the mixed metal oxide anode, this notion has been greatly challenged. The anodes are small, lightweight, and can operate at current densities much higher than conventional impressed-current anodes (approximately 10 amps/ft.² in soil and freshwater, and over 50 amps/ft.² in seawater). In addition, the mixed metal oxide coating on the anodes has an almost negligible consumption rate of less than 1.0 mg/amp-yr. Corrpro manufactures a full line of solid mixed-metal-oxide anodes for use in a variety of environments. The anodes are composed of titanium rod substrates, which are coated with a mixed-metal-oxide catalyst. The titanium rod is inherently stable, thus the transfer of direct electrical current is performed through the mixed-metal-oxide coating. The end result is a high-performance anode with an extremely long life.

As with any impressed current anode, a reliable lead wire connection is critical to the operating performance of mixed-metal-oxide anodes. On Corrpro solid rod anodes, a crimped wire connection is made using twelve tons of hydraulic compression. The crimped connection is then covered with two types of moisture-resistant mastic tapes and sealed with a heat shrink sleeve. This extremely reliable connection has proven to prevent electrical breakdowns and produce a low resistance of under 0.004 ohms.



Typical Applications

Corrpro rod anodes perform well in all types of environments. Their mixed-metal-oxide coating prevents substrate attack in even highly acidic environments. The anodes have been used with great success in deep and conventional groundbeds, and in fresh, brackish, and saltwater electrolytes. Corrpro supplies the anodes either bare or in canisters containing petroleum coke breeze. For aqueous environments, the anodes can also be provided in a specially designed PVC perforated tube that directs current flow and provides extra protection to the anode.

CHEMICAL COMPOSITION

Substrate	Catalyst
ASTM B-348 Grade 1 Titanium	Mixed Metal Oxide



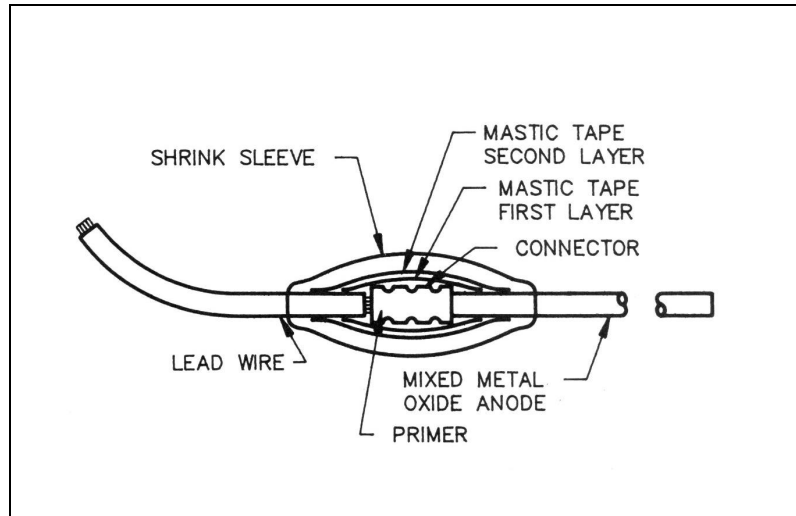
Corrpro Companies Europe Limited

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 Fax: (01642) 614100 E-mail: ccel@corrpro.co.uk

Mixed Metal Oxide Solid Rod Anodes

Ordering Procedure

Solid-rod anodes are available from Corpro in a number of diameters and lengths. Lead wires can be attached to one end of the anodes for conventional use, or to both to form anode strings. To order the required anode for your structure, indicate that you need a solid-rod mixed-metal-oxide anode, and specify the quantity desired, the anode type, the lead wire length, size, and insulation, and whether it should be packaged, bare, or placed in a PVC tube. An example is provided to help illustrate this process.



Standard Dimensions and Shipping Weights

ANODE TYPE	NOMINAL DIMENSIONS				NOMINAL WEIGHT				CURRENT RATING*
	in. (mm)		ft. (mm)		BARE WT.		PKG. WT.		
	Ø		L		oz./ft.	(g/m)	lbs.	(kg)	
M 84	0.125	(3.175)	4	(101.6)	0.38	(35.6)	22	(10)	1.7
M 88	0.125	(3.175)	8	(203.2)	0.38	(35.6)	44	(20)	3.4
M 44	0.25	(6.350)	4	(101.6)	1.5	(43.4)	22	(10)	3.4
M 48	0.25	(6.350)	8	(203.2)	1.5	(43.4)	44	(20)	6.8
M 24	0.50	(12.7)	4	(101.6)	6.1	(173.8)	23	(10.5)	6.7
M 28	0.50	(12.7)	8	(203.2)	6.1	(173.8)	46	(21)	13.4

* Based on 20-year design life in calcined petroleum grade coke.

Ordering Procedure Example

ITEM	EXAMPLE
Quantity	200
Anode Material	Solid Rod Mixed Metal Oxide
Anode Type	M88
Wire: Length	10 ft.
Size (#6, #8 = Standard)	#8 AWG
Insulation (HMWPE and Halar = Standard)	HMWPE
Packaging: (Bare or Pkgd. or PVC tube)	Packaged



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