

Betelguard MMO Titanium Rod Anode

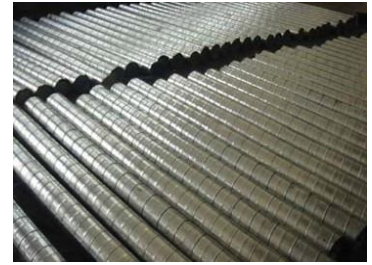
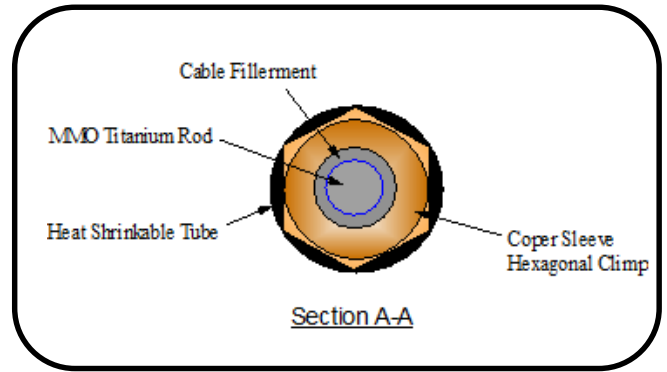
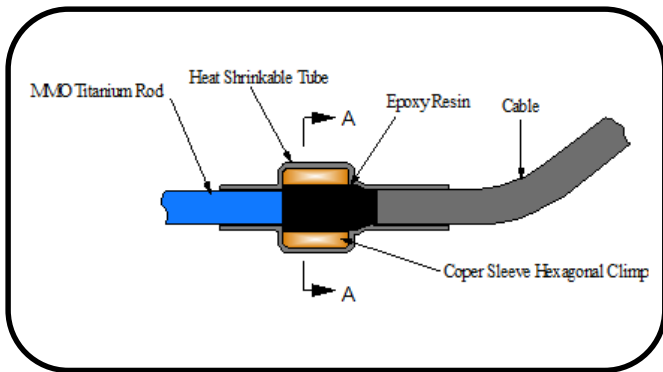


Betelguard MMO coated titanium rod anode is one of the most durable and popular anodes for ICCP due to the cost-effectiveness and long life. The MMO coating consumes a negligible amount (less than 1.0 mg/amp-year).

Solid rod anodes are available in a number of diameters and lengths. Cable can be attached to one end of the anode for conventional use, or both ends to form anode strings.

Specification

Length:	100 mm to 2,000 mm
Diameter:	16 mm, 19 mm, 25 mm and 32 mm
Substrate:	ASTM B-265, Grade 1 Titanium
MMO Coating	Iridium Oxide Based
MMO Coating Uniformity:	Greater than 90 percent
Design Anode Life:	Specified (10 years to 100 years)



Note: MMO anodes are supplied with or without canister.

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Anode Sizes and Maximum Current Output (1,000mm long)

Environment	Anode Diameter				
	3.2 mm	6.4 mm	12.7 mm	19 mm	25 mm
Seawater	6 amp	12 amp	24 amp	35 amp	47 amp
Brackish Water	3 amp	6 amp	12 amp	17.5 amp	23.5 amp
Fresh Water	1 amp	2 amp	4 amp	6 amp	8 amp
Coke Breeze	1 amp	2 amp	4 amp	6 amp	8 amp

Anode Sizes and Maximum Current Output (4 ft long)

Environment	Anode Diameter				
	1/8"	1/4"	1/2"	3/4"	1"
Seawater	7.3 amp	14.6 amp	29.3 amp	42.7 amp	57.3 amp
Brackish Water	3.7 amp	7.3 amp	14.6 amp	21.4 amp	28.7 amp
Fresh Water	1.2 amp	2.4 amp	4.9 amp	7.3 amp	9.8 amp
Coke Breeze	1.2 amp	2.4 amp	4.9 amp	7.3 amp	9.8 amp

Cable Information

Insulation Type	Application
XLPE/PVC	Suitable for underground and underwater application. The cable is flexible and easy to handle.
HMWPE	Suitable for underground and underwater application. The cable is not flexible.
PVDF Fluoropolymer (Kynar) /HMWPE	Insulation is super durable for soil, water and concrete application. This insulation is used as deep anode lead wires where chlorine and hydrogen gases are generated. The cable can be directly installed in fresh, brackish, or salt waters.
ECTFE Fluoropolymer (Hayler)/HMWPE	Fluoropolymer material that has exceptional chemical resistance in the presents of chlorine, sulfuric acid, hydrochloric acid. The outer insulating layer is high molecular weight polyethylene (HMWPE) it exhibits superior dielectric and tensile strength and provides mechanical protection.

Note: Wire-armored insulated cables are also available upon request for requiring extra protection.

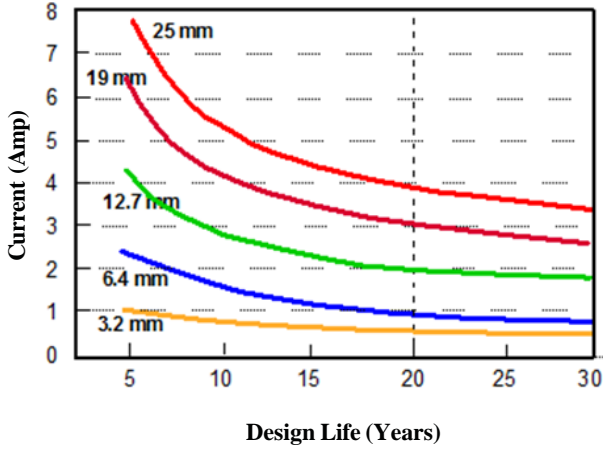


Cable Size (mm ²)	AWG Cable Size	Approx. Max. Current Capacity (Amp)
10	8	40
16	6	55
25	4	70
35	2	85

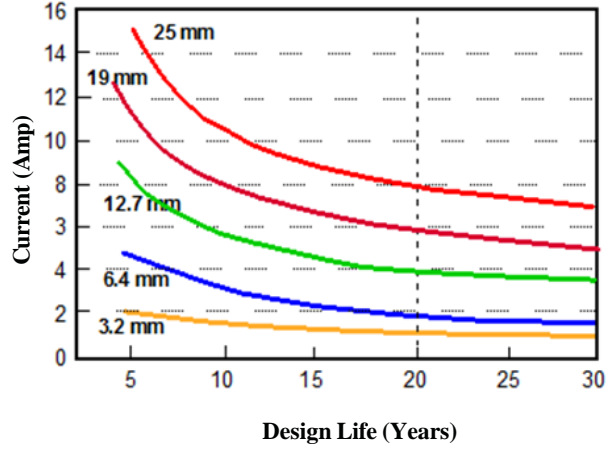
MMO Tubular Anode Design Life and Current Rating

Environment: Coke and Fresh Water

Anode Length: 500 mm

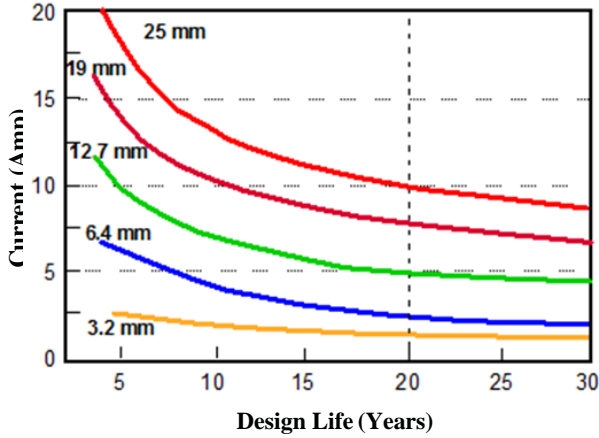


Anode Length: 1000 mm

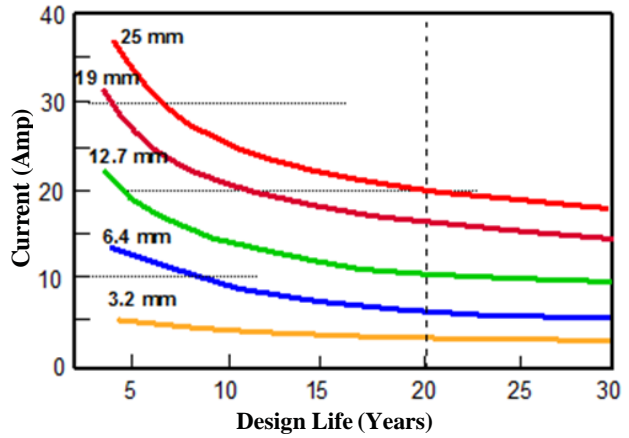


Environment: Brackish Water

Anode Length: 500 mm

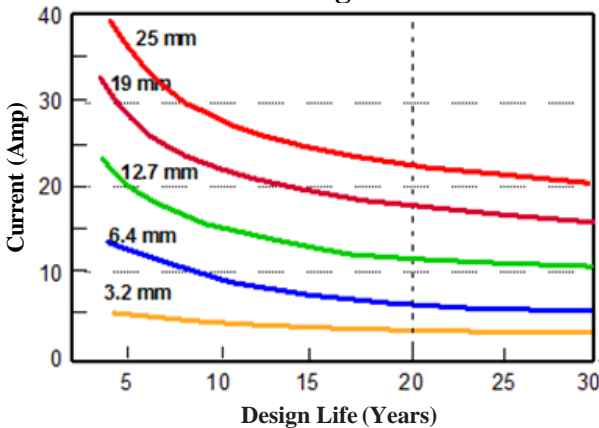


Anode Length: 1000 mm



Environment: Seawater

Anode Length: 500 mm



Anode Length: 1000 mm

