



MMO MESH RIBBON ANODES

PRODUCT DATA SHEET

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Typically, MMO mesh ribbon anode is a key component for impressed current cathodic protection of new build reinforcement concrete structures and existing concrete structures. It has been proved to be a very effective way of controlling corrosion of rebar, particularly in hot and saline conditions.

QUALITY SUBSTRATE MATERIAL

Our MMO mesh ribbon anodes are manufactured from high-tensile titanium, which meets commercially ASTM B265 Grade I standards.

Technical Measurement	Performance
Coefficient of Thermal Expansion	$8.7 \times 10^{-5} / ^\circ\text{K}$ ($4.8 \times 10^{-6} / \text{in/in}/^\circ\text{K}$)
Thermal Conductivity @ 20°C	15.6 W/m ² K (9.0 BTU/hr.ft ² .°F)
Electrical Resistivity	$56 \times 10^{-6} \Omega\text{cm}$ ($22 \times 10^{-6} \Omega\text{in}$)
Modulus of Elasticity (Min.)	105 GPa (14,900,000 PSI)
Tensile Strength (Min.)	245 MPa (35,000 PSI)
Yield Strength (Min.)	175 MPa (25,000 PSI)
Elongation (Min.)	24%

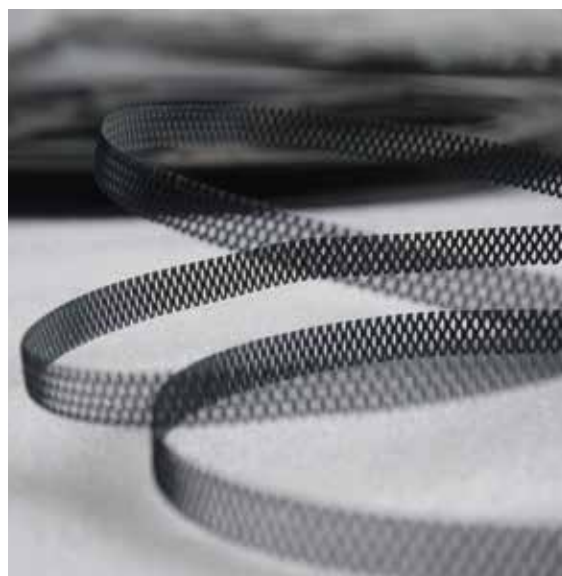
LONG SERVICE COATING

Our anodes are coated with iridium-tantalum mixed metal oxide catalyst as standard. It is recommended for use in soil or concrete where there is either no chloride ions or low chloride ions present.

Based upon accelerated life testing conducted by an independent laboratory, our MMO coating has been proven to be superior to other similar products in the market.

Technical Measurement	Performance
Coating Element	IrO ₂ , Ta ₂ O ₅
Coating Thickness	0.5~1 μm
Coating Uniformity	85% min.
Working Environment	Fine sand, Concrete

* Depend on the form of usage, we can produce anodes with different noble metal oxide ratios and differing coating thickness.

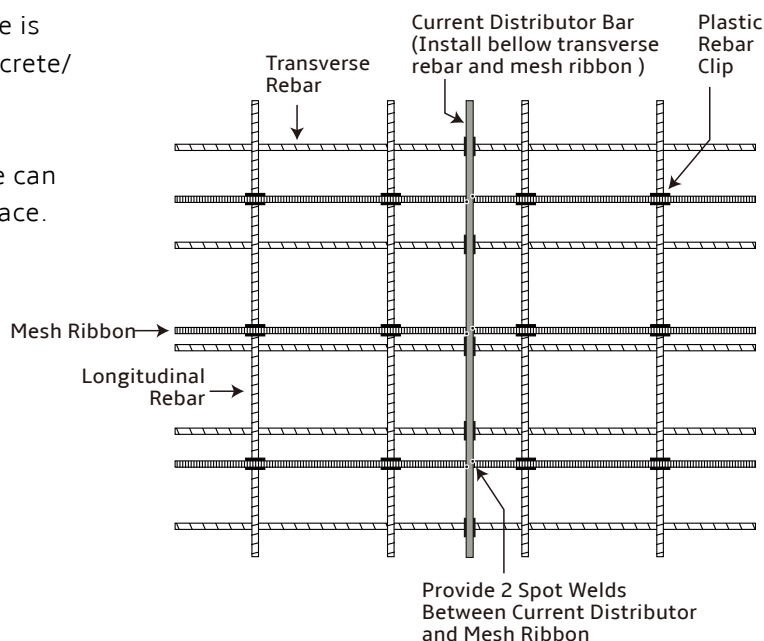
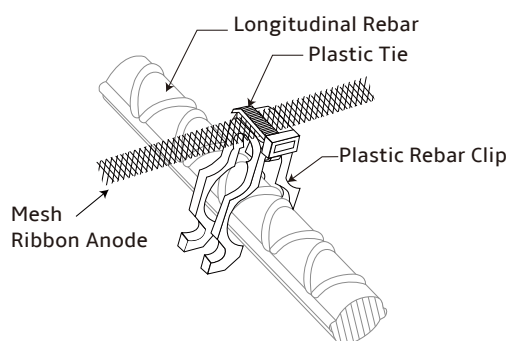


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PRACTICAL APPLICATION

For new build structures, the mesh ribbon anode is simply attached onto the rebar embedded in concrete/mortar before the concrete is poured.

For retrofit applications, the mesh ribbon anode can be inserted into slots cut into the concrete surface.



ELECTROCHEMICAL PROPERTIES

The maximum current density of anode/concrete interface stated as below:

FHWA limit: 110 mA/m² (10 mA/ft²) / Short Term Limit: 220 mA/m² (20 mA/ft²)

Item No.	Linear Resistance	Current Output	
		50 yrs. Lifetime	100 yrs. Lifetime
YX-MESH-10	0.5 Ω/m (0.15 Ω/ft.)	3 mA/m (0.91 mA/ft.)	2.8 mA/m (0.9 mA/ft.)
YX-MESH-13	0.39 Ω/m (0.12 Ω/ft.)	3.8 mA/m (1.16 mA/ft.)	3.5 mA/m (1.1 mA/ft.)
YX-MESH-15	0.375 Ω/m (0.11 Ω/ft.)	4.1 mA/m (1.25 mA/ft.)	3.9 mA/m (1.2 mA/ft.)
YX-MESH-19	0.25 Ω/m (0.08 Ω/ft.)	5.7 mA/m (1.74 mA/ft.)	5.3 mA/m (1.6 mA/ft.)
YX-MESH-20	0.25 Ω/m (0.08 Ω/ft.)	5.7 mA/m (1.74 mA/ft.)	5.3 mA/m (1.6 mA/ft.)
YX-MESH-25	0.19 Ω/m (0.06 Ω/ft.)	7 mA/m (2.13 mA/ft.)	5.8 mA/m (1.8 mA/ft.)

SPECIFICATIONS

Item No.	Width	Expanded Thickness	Mesh Diamond	Surface Area	Coil Length	Weight
YX-MESH-10	10 mm (0.4")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.025 m ² /m (0.008 ft ² /ft.)	76m (250 ft.)	14 g/m (0.009 lbs/ft)
YX-MESH-13	13 mm (0.5")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.032 m ² /m (0.01 ft ² /ft.)	76m (250 ft.)	19 g/m (0.012 lbs/ft)
YX-MESH-15	15mm (0.6")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.036 m ² /m (0.118 ft ² /ft.)	76m (250 ft.)	28.5 g/m (0.019 lbs/ft)
YX-MESH-19	19mm (0.75")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.048 m ² /m (0.158 ft ² /ft.)	76m (250 ft.)	38 g/m (0.025 lbs/ft)
YX-MESH-20	20mm (0.8")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.048 m ² /m (0.158 ft ² /ft.)	76m (250 ft.)	38 g/m (0.025 lbs/ft)
YX-MESH-25	25mm (1")	0.6mm (0.02")	2.5 x 4.6 x 0.6 mm (0.1" x 0.18" x 0.024")	0.062 m ² /m (0.203 ft ² /ft.)	76m (250 ft.)	45 g/m (0.03 lbs/ft)

Note: All dimensions and weights shown above are nominal. The information provided is subject to change without notice.





Industrial Corrosion Control Solutions Provider

Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheeps with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.



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