ELGARD™ Anode ribbon mesh is composed of a precious metal oxide catalyst sintered to an expanded Titanium mesh substrate. The Anode Ribbon Mesh is used as a key component in the Cathodic Protection of Reinforced Concrete Structures.

### MATERIAL SPECIFICATIONS

#### ANODE PERFORMANCE
- **Current rating @ 110 mA/m² (10 mA/ft²):** 2.8 mA/m (0.85 mA/ft)
- **Expected life (NACE Standard TM0294-94):** 75 Years
- **Catalyst:** Iridium Based Mixed Metal Oxide
- **Maximum anode concrete interface current density:**
  - FHWA limit: 110 mA/m² (10 mA/ft²)
  - Short-term limit: 220 mA/m² (20 mA/ft²)

#### NOMINAL DIMENSIONS
- **Width:** 10 mm (0.4")
- **Coil length:** 76 m (250 ft)
- **Actual anode surface per unit length of anode:** 0.025 m²/m (0.082 ft²/ft)
- **Expanded thickness:** 1.30 mm (0.051")
- **Diamond dimensions:** 2.5 x 4.6 x 0.6 mm (0.10 " x 0.18 " x 0.025")
- **Shipping weight per coil:** 1.4 kg (3.1 lbs)

#### SUBSTRATE
- **Composition:** Titanium, Grade 1 per ASTM B265
- **Coefficient of thermal expansion:** 8.7 x 10⁻⁵/˚K (0.000048/in/in/˚K)
- **Thermal conductivity @ 20°C:** 15.6 W/m - ˚K (9.0 BTU/hr/ft²/˚F)
- **Electrical resistivity:** 0.000056 Ohm-cm (0.000022 Ohm-in)
- **Modulus of elasticity:** 105 GPa (14,900,000 PSI) minimum
- **Tensile strength:** 245 MPa (35,000 PSI) minimum
- **Yield strength:** 175 MPa (25,000 PSI) minimum
- **Elongation:** 24% minimum

#### CURRENT DISTRIBUTOR
- **Width:** 12.70 mm (0.5")
- **Thickness:** 0.90 mm (0.035")
- **Coil length:** 76 m (250 ft)
- **Shipping weight per coil:** 3.9 kg (8.6 lbs)

#### ELECTRICAL PROPERTIES
- **Anode ribbon mesh resistance lengthwise:** 0.49 Ohm/m (0.15 Ohm/ft)
- **Current distributor resistance lengthwise:** 0.049 Ohm/m (0.015 Ohm/ft)