RETROMAT™

Technical datasheet

RetroMat ICCP

General

RetroMat ICCP is a standard concrete stabilisation mattress with an integrated impressed-current cathodic protection system comprised of many disc shaped Mixed Metal Oxide (MMO) anodes cast directly into the concrete. The mattress is formed using plastic FLXMAT shells, which allows the concrete to be poured locally on-site.

Single concrete block

Shell	Plastic FLXMAT shell
Size	20" x 20" x 12" (500 x 500 x 300 mm)
Volume	1.5 ft^3 (0.042 m^3)
Weight (air)	225 lb (100 kg)
Weight (water)	130 lb (60 kg)
Lifting	5/8" (16 mm) polypropylene rope
Concrete	Typical density 150 lb/ft^3 (2400 kg/m^3)
Quantity	Subject to project requirements

MMO anode / Cable connection

Method	Tin alloy expanding compression fitting (internal)
Sealing	Flexible resins (2 stage)
Testing	Helium leak test at 20 PSI (138 kPa)
Outside diameter	0.423" (10.7 mm)
Weight (air)	0.23 lb/ft (0.34 kg/m)

MMO anode elements

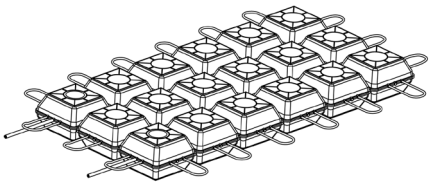
Base material	Titanium Disc – Grade ASTM B338 Grade 1 or 2
Diameter	Ø 7" (Ø 180 mm)
Thickness	0.035" (0.9 mm)
Coating	Mixed Metal Oxide activation coating comprised of Iridium Dioxide / Tantalum Pentoxide, proprietary application method.
Quantity	0 or 1 per shell, total quantity as per project requirements.

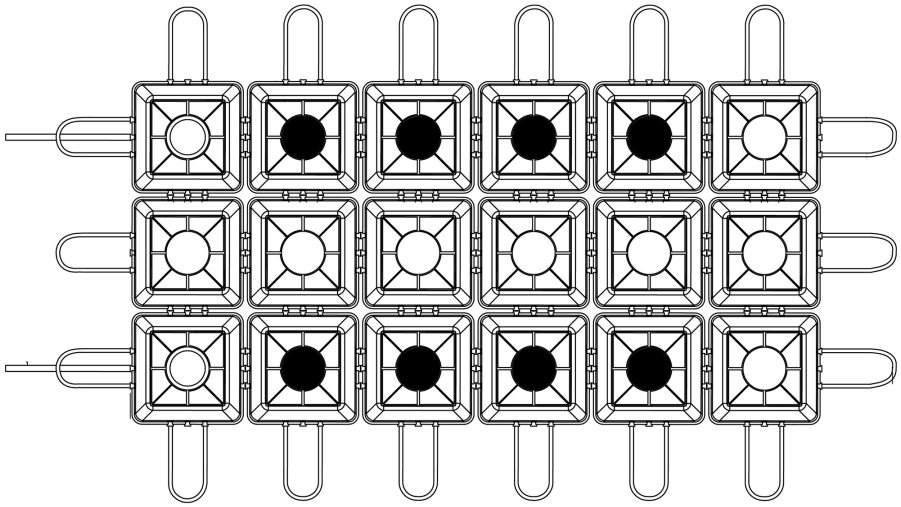
Standard feeder cable

Type	HDPE/DGSWA/Polyethylene 3-core cable
Each core	4/0 AWG (107 mm^2) XLPE/XLPE
Filler	HDPE

Anode cable / continuity

Type	4/0 AWG Flexible cable (107 mm^2) power cable
Conductor	Soft annealed stranded tinned copper conductor to ASTM B33
Insulation	Type P XLPO
Ampacity	400 A @ 95°C
Connection	Copper C-Crimp
Encapsulation	2-part epoxy resin Y-Type splice kit





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