

Product Evaluation

RE: Review of Polimac Coated Double Twist (DT) Gabion and Gabion Mattresses

PRODUCT

Polimac Coated Double Twist (DT) Gabion and Gabion Mattresses is manufactured and distributed by Maccaferri Canada Ltd located in Cambridge Ontario. Website: <https://www.maccaferri.com/ca/polimac/>

VENDOR CLAIMS AND INFORMATION

CLAIMS

The steel wire used for manufacturing of PoliMac coated Gabion mats is heavily zinc coated soft or medium temper steel in accordance with ASTM A975, style 3 coating. A high abrasion resistant polymer coating is then applied to provide additional protection for use in polluted, contaminated or aggressive environments: in salt, fresh water, acid soil or wherever the risk of corrosion is present. The high abrasion resistant polymer coating has a nominal thickness of 0.50 mm.

DESCRIPTION

Polimac Coated Gabion mat is a double twisted hexagonal wire mesh (Type 8X10) container of variable sizes, uniformly partitioned into internal cells by diaphragms. They are interconnected with other similar units and filled with stone at the project site to form flexible, permeable, monolithic structures such as retaining walls, channel linings, revetments, scour protections and other erosion control applications.

POTENTIAL USAGE

Erosion control at highly aggressive environment

STANDARDS

ASTM A975 – Specification for Double-Twisted Hexagonal Mesh Gabions and Rivet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel Wire With Poly(Vinyl Chloride) (PVC) Coating)

ASTM G154 – Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

ASTM D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact

ASTM B117 – Standard Practice for Operating Salt Spray (Fog) Apparatus

ASTM A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS COMMENTS

EXPERIENCE

Alberta Transportation and Economic Corridors has used this product as a trial product.

APPLICABLE STANDARDS

Alberta Transportation Erosion and Sediment Control Manual (2010) – B.M.P. # 2

Alberta Transportation Standard Specification for Highway Construction, Section 6.10 – Gabions and Gabion Mattresses

RECOMMENDATIONS

PoliMac Coated Gabion mat be listed as a Trial Product under Transportation and Economic Corridors Products List, Erosion Control Systems – Gabions and Mats – Proprietary, based on the information provided. Final acceptance as a proven product will be based on field performance.

RESTRICTIONS ON USE

Caveat:

TRIAL PROJECTS

TND0021618 – Red Deer (2022)

40 Avenue, Airdrie (51.255745, -114.040594) 2024

Rishi Adhikari

cc New Products Evaluation Group – Kristen Tappenden,