COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3156-10

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 216.02.03.00

FOR INTERNAL CDOT USE

Material code description full name: Turf Reinforcement Mat

PART 1

Product name: Pyramat

Product category: Envir., Erosion Control\Soil Retention Covering\TRM [Class 3]

Product representative (name & address):
Attn: Jim Lemos
Propex Operating Company, LLC
13612 W. Alaska Place
Lakewood, CO 80228
Phone: (303) 520-3238 FAX:

Manufacturer (name & address):
Attn: Scott Manning
Propex Operating Company, LLC
4019 Industry Drive
Chattanooga, TN 37416
Phone: (423) 553-2520 FAX: (423) 899-7619

Web-site address: www.geotextile.com www.propexus.com

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Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)

PYRAMAT is a high performance turf reinforcement mat (HPTRM) is a three-dimensional, lofty, woven polypropylene matting that is available in green or tan which is specially designed for erosion control applications on steep slopes and vegetated waterways. The matrix is composed of polypropylene monofilament yarns woven into a uniform configuration of resilient pyramid-like projections. Construction of mat is homogenous - there are no nets. The material exhibits very high interlock and reinforcement capacity with both soil and root systems, demonstrates superior UV resistance, and enhances seedling emergence. All components of Pyramat are composed solely of non-degradable synthetic materials stabilized against ultraviolet degradation.

Mass per unit - 13.5 oz/yd2. Roll dimensions - 8.5ft x 90 ft. (85 yd2).

Tensile Strength: 4000 x 3000 lb/ft

UV Resistance: 90% @ 6000 hours

Seedling Emergence: 296%

Restrictions, (installation and/or use):

Do not use on continuous flow channels or shoreline applications with high wave action.

Use of the product, (be specific to CDOT highway activities only):

Steep slopes 1H:1V or steeper, High flow channels: Shear stress up to 15 lb/ft2 and velocities up to 25 ft/sec when vegetated, Inlet/outlet structures.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):

The major advantages of Pyramat include 4000 x 3000 lbs tensile strength (maintenance), flexibility (intimate contact with the soil), UV stability of 90% @6000 hours, and functional longevity (50 year design life unvegetated). Pyramat meets requirement of 5 square mm or less mesh size to prevent wildlife entanglement in any sensitive habitats. Pyramat is manufactured as a woven product and is well suited for use with native vegetation since it's joints are not fixed / rigid and are able to open. It can be staked with willows, and seeded/planted with native grasses and woody species. Available in green or tan color.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- ☐ CDOT :
- ☐ ASTM :
- ☐ AASHTO :
- ☒ FHWA : FP-03, Section 713, exceeds Type 5C
- ☐ other :

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- ☒ NTPEP-AASHTO : 2010 NTPEP Report 12001.10
- ☐ FHWA :
- ☒ other : CSU (March 29, 2010)
- ☐ other :

State DOT Approvals, (current documentation required):

Sample submitted: ☒ yes ☐ no ☐ n/a

Materials Safety Data Sheets (MSDS): ☒ yes ☐ no ☐ n/a

Notes/Additional Comments

Pyramat meets the definition of an HPTRM as defined by the U.S. EPA Storm Water Fact Sheet, "Turf Reinforcement Mats" (EPA-832-F99-002), and FHWA FP-03 Specification. Section 713.8.

Pyramat has been used on numerous CDOT projects.

No State DOT Approval documentation provided for Kansas, Maryland, Virginia, New York, Texas.