

Standard No.: APL-151

Current: Effective Date
October 2024

Previous: February 2018

Page 1 of 2

HIGHWAY DESIGN BRANCH

Standard Practice for: Biodegradable Erosion Control Blankets

Erosion Control Blankets

- 1) Must be 100% organic biodegradable. This shall include parent material, stitching, and netting.
- 2) The netting shall be bonded sufficiently to the parent material to prevent separation of the net from the parent material for the life of the product.
- 3) The netting shall be capable of withstanding moderate foot traffic without tearing.

Table 1. Specifications for Biodegradable Erosion Control Blankets

| Туре | Longevity | Allowable Slope Gradient (H:V) | Minimum Product Permissible Shear Stress (Pa) | C Factor |
|---------------------------|--------------|-----------------------------------|---|-------------|
| Class 1* Short Life | 6-12 months | 4:1 or flatter | 50 | 0.2 or less |
| Class 2 Medium Life | 12-24 months | 2.5:1 or flatter | 70 | 0.2 or less |
| Class 3 Long Life | >24 months | 2:1 or flatter | 95 | 0.2 or less |

^{1.} Class 1 replaces Class 1, Type Urban Biodegradable

Anchoring Devices:

- 1) All materials and additive components that are used to manufacture the anchoring devices shall be completely biodegradable as determined by ASTM D 5338-92.
- 2) All materials shall be environmentally safe, and shall have no potential for soil and/or water contamination.



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Page 2 of 2

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- 3) Petroleum based plastics or composites containing petroleum based plastics will not be allowed.
- 4) Materials deemed to present a hazard from splintering or spearing will not be approved.
- 5) The anchoring devices shall maintain their mechanical anchoring ability for at least two months, and substantially degrade within four months during the months of warm soil conditions (above 12 °C).
- 6) The anchoring devices shall be shaped, using barbs, twists, bends, or other methods, to provide additional mechanical pull resistance when installed in the soil.