Installation Guidelines for the ADS OFM100 used in Channel and Slope Applications

Prepared by:

Advanced Drainage Systems
4640 Trueman Blvd.
Hilliard, OH 43026
Tel 614 658 1000
www.ads-pipe.com

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INSTALLATION GUIDELINES

General
This document is intended as an installation guideline only and should not be construed as engineer-
ing advice. Final decision regarding proper installation details shall be written into the project speci-
fications and is the responsibility of the project engineer. In this document, the terms “anchor(s)” and
“pin(s)” are used mutually to identify a mechanical securing device. The appropriate securing device
shall be site-specific based upon hydraulic conditions and soil type and shall be identified in the proj-
et specifications.

ADS OFM100 HPTRM:
ADS OFM100 is shipped in rolls 12ft (3.7m) wide x 75 ft (22.9m) long and weigh approximately 60
lbs. A full roll can be handled and installed by two people using the following procedures.

Site Preparation & Vegetation:
Grade the surface of installation areas so ground is smooth and compact. When seeding prior to
installation, prepare the ground surface by loosening 2” (5.08 cm) to 3” (7.62 cm) of topsoil or per the
seed recommendations. All gullies, rills and any other disturbed areas must be leveled and fine grad-
ed prior to installation. (IMPORTANT: Remove all large rocks, dirt clods, stumps, roots, grass clumps,
trash and other materials that would obstruct the mat from lying in direct contact with the soil surface).
Spread seed before mat installation for erosion control and after mat installation for turf reinforcement.
(NOTE: Sod or Hydroseeding is recommended).
Initial and terminal anchor trenches are required at the mat ends and intermittent trenches (Figure
6) must be constructed across channels at 40 ft. (12.2 m) intervals. Initial, terminal and longitudinal
anchor trenches should be a minimum 12” (30.48 cm) deep and 12” (30.48 cm) wide (Fig. 2 and 3).

Channel Installation (ADS OFM100):
Excavate initial and terminal trenches 12” (30.48 cm) deep and 12” (30.48 cm) wide (Figure 2 and 3)
across the channel at the upper and lower end of the channel sections to be lined. Place the first mat
at the downstream end of the channel. Place the end of the first mat in the initial trench and pin it at
12” (30.48 cm) intervals along the bottom of the trench (Figure 2). Once pinned and backfilled, the
installation of the ADS OFM100 may continue by wrapping over the top of the trench and positioning
in the upstream direction of the channel.

When starting installation of an adjacent roll (mat), allow the new mat to shingle-lap over the previous-
ly installed mat a minimum of 6” (15.24 cm) with upstream mat on top of downstream mat to prevent
uplifting. Pin at 12” (15.24 cm) intervals along the entire overlap (Figure 5).

If the channel length is longer than 60 ft. (18.3 m), an intermittent trench should be utilized (Figure
6) at 40 ft. (12.2 m) intervals. Place the edges of adjacent mats in the trench by overlapping the two
mats at a depth of 12” (30.48 cm) with a 6” (15.24 cm) wide horizontal section allowed for anchoring.
Anchor securely with suitable pins at 12” (30.48 cm) intervals as shown in the detail then backfill and
compact the soil.

At the upper terminal trench (Figure 3), allow the ADS OFM100 to conform to the trench, secure with
pins, backfill, compact and then bring the mat back over the top of the trench and onto the existing mat using an 18" (45.72 cm) minimum overlap in the downstream direction. The overlapped area should be pinned at 12" (30.48 cm) intervals across the mat (as shown).

Place the outside ends of the ADS OFM100 mat(s) in longitudinal trenches (Figure 4) by extending the mat approx. 4 ft. (1.22 m) over the top of the channel side slope and into an excavated trench measuring at least 12" (15.24 cm) deep and 12" (15.24 cm) wide. The excavated trench should be positioned at least 2 ft. (0.61 m) back from the top crest of the side slope. Pin the mat at 12" (15.24 cm) intervals along the bottom of the trench, backfill and compact. Also pin the mat along the top crest of the slope by placing two rows of pins spaced approx. 12" (15.24 cm) apart, every 12" (15.24 cm) as shown in the detail. Backfill and compact excavated trench.

In addition to anchoring in all terminal trenches and overlaps, The ADS OFM100 HPTRM should be pinned to the ground in a 3 ft. (0.91 m) center to center pattern (Figure 11). Less frequent stapling/pinning may be acceptable on small channels.

**NOTE:** For small channels of less than 8 ft. wide, the ADS OFM100 HPTRM may be unrolled and positioned along the long axis of the channel (i.e. parallel to the flow direction).

![Figure 1: Typical Channel Configuration with ADS OFM100](image)
Figure 2: Initial Anchor Trench (Downstream)

Figure 3: Terminal Anchor Trench (Upstream)
Figure 4: Longitudinal Trench

Figure 5: Typical Overlap
Figure 6: Typical Intermittent Trench

Slope Installation (ADS OFM100):
Place the ADS OFM100 HPTRM mat approx. 5 ft. (1.52 m) over the top of the slope and into an excavated trench measuring at least 12” (15.24 cm) deep and 12” (15.24 cm) wide. The excavated trench should be positioned at least 3 ft. (0.91 m) back from the top crest of the slope (Figure 8). Pin the mat at 12” (15.24 cm) intervals along the bottom of the trench, backfill and compact. Also pin the mat along the top crest of the slope by placing two rows of pins spaced 24” (60.96 cm) apart, every 12” (15.24 cm) as shown in the detail. Backfill and compact excavated trench.

Unroll the ADS OFM100 HPTRM mat down the slope while maintaining intimate contact with the soil. When starting installation of an adjacent roll (mat), allow the new mat to shingle-lap over the previously installed roll a minimum of 6” (15.24 cm). Pin at 12” (15.24 cm) intervals along the entire overlap (Figure 10).

At the toe of slope, the ADS OFM100 should be placed into an anchor trench at a depth of 12” (30.48 cm) with a 6” (15.24 cm) wide horizontal section allowed for anchoring (Figure 9). Anchor securely with suitable pins at 12” (30.48 cm) intervals as shown in the detail then backfill and compact the soil.

In addition to anchoring in all terminal trenches and overlaps, The ADS OFM100 HPTRM should be pinned to the ground in a 3 ft. (0.91 m) center to center pattern (Figure 11). Less frequent stapling/pinning may be acceptable on small slopes.
Figure 7: Typical Slope Section with ADS OFM100

Figure 8: Typical Anchor Trench - Top of Slope
**Figure 9: Typical Slope Section with ADS OFM100**

**Figure 10: Typical Overlap**
Securing Devices:
11 Gauge, 12 in. (15.24 cm) x 1 in. (2.54 cm) x 12 in. (15.24 cm) metal staples or 18 in. (45.72 cm) pins, having 3/16 in. (0.476 cm) shank diameter and an attached 1½ in. (3.81 cm) dia. washer, are suitable for fastening ADS OFM100 to the ground. Drive staples or pins so that the top of the staple or washer is flush with ground surface. Staple or pin each mat as outlined in the above sections. Staples and pins should be placed according to the Anchor Placement Density table shown in Figure 9, below.

Note: The appropriate securing device shall be site-specific based upon hydraulic conditions and soil type and shall be identified in the project specifications. Final decision regarding proper installation details shall be written into the project specifications and is the responsibility of the project engineer.