

DRAINPLATE-60HV

DrainPlate-60HV is a 2-1/2" tall three-dimensional plastic water storage and drainage structure for green roofs made of recycled high-density polyethylene. Typically the entire top surface is filled with a lightweight inorganic aggregate to support the separation fabric and planting media above. Approximately 0.9" of water is stored permanently in void spaces within the pockets, and an additional 0.9" of water is stored temporarily in void spaces above the pockets. Passageways on the underside provide storm drainage as well a ventilation for inverted roofs. When filled with lightweight aggregate, the assembly has extraordinarily high compressive strength.



TECHNICAL DATA

Dimensions: 40" x 80" x 2-1/2" (1m x 2m x 60mm)
 Gross Surface Area: 22.5 ft²/plate (2.1 m²/plate)
 Net Coverage: 22.5 ft²/plate (2.1 m²/plate)
 Weight: 0.72 lb/ft², 16.1 lb/plate (3.5 kg/m², 7.3 kg/plate)
 Packaging: 180 plates (4050 ft² or 375 m²) per pallet
 Material: black 100% post-consumer recycled HDPE
 Aggregate Fill Required: 0.15 ft³/ft² (45 l/m²)
 Long-Term Water Retention: 0.57 gal/ft² (23 l/m²)*
 Temporary Water Retention: 0.55 gal/ft² (22 l/m²)*
 Compressive Strength: 14,500 psf (695 kN/m²)*
 * when filled with lightweight aggregate

Flow Rate:

Hydraulic Gradient	Flow Rate (gal/min/ft)	Flow Rate (liters/sec/m)
i = 0.01	2.8	0.6
i = 0.02	4.1	0.8
i = 0.05	6.6	1.4
i = 0.10	9.5	1.9
i = 1.00	31.6	6.5

INSTALLATION PROCEDURE

- Lay plates over Protection Mat HD overlapped 6". For inverted roofs, lay plates over Protection Mesh to preserve the thermal value of the insulation.
- Cut single plates with a sharp utility knife, using a board to protect underlying materials from damage. Cut multiple plates off the roof with a circular saw.
- Butt panels tightly together, staggering end joints by one-half sheet.
- Fill plates completely to the top of the ribs with 1/4" to 5/8" (6mm-16mm) lightweight aggregate. In addition to supporting Separation Fabric and increasing compressive strength, filling prevents wind uplift and thermal expansion during installation.
- Lay Separation Fabric HD over plates, overlapping 6".
- Spread engineered green roof planting media.

