

DRAINPLATE-40HP

DrainPlate-40HP is a 1-1/2" tall three-dimensional plastic structure for green roofs made of high-density polyethylene. Unlike flexible drainage sheets made of thin plastic, this is a thick, semi-rigid product designed to last a lifetime and to withstand heavy pedestrian traffic. Cavities on the upper side provide a small amount of supplemental water storage, while passageways on the underside provide high-rate storm drainage. Small holes at the middle of the sheet height assures there is always an air gap between the filter mat and water, preventing waterlogged soil. Precision molding makes it possible to cleanly overlap adjacent sheets.



TECHNICAL DATA

Dimensions: 39" x 79" x 1.5" (1 m x 2 m x 40mm)

Gross Surface Area: 21.5 ft²/plate (2 m²/plate)

Net Coverage: 19 ft²/plate (1.75 m²/plate)

Weight: 0.5 lb/ft², 11 lb/plate (2.3 kg/m², 4.6 kg/plate)

Packaging: 300 plates (6450 ft² or 600 m²) per pallet

Material: black 100% post-consumer recycled HDPE

Water Retention: 0.22 gal/ft² (9 l/m²)

Aggregate Fill Volume: 0.06 ft³/ft² (17 l/m²)

Compressive Strength (unfilled): 2080 psf (100 kPa)

Flow Rate:

Hydraulic Gradient	Flow Rate (gal/min/ft)	Flow Rate (liters/sec/m)
i = 0.01	7.7	1.6
i = 0.02	11.2	2.3
i = 0.05	18.1	3.8
i = 0.10	26.0	5.4
i = 1.00	80.4	16.6

INSTALLATION PROCEDURE

- Lay plates over Protection Mat overlapped 6". For inverted roofs, lay plates over Protection Mesh.
- Overlap adjacent plates by two corrugations.
- Stagger joints in adjacent rows by one-half sheet so that there are no more than three layers at any point.
- 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. Half sheets can also be purchased to speed installation of staggered patterns.
- Fill plates immediately with water to prevent uplift in windy conditions or to prevent expansion on sunny days.
- Before applying green roof media, lay Separation Fabric HD over plates, overlapping 6".
- Spread engineered green roof planting media.

