

Hexagonal Mangrove Planter – Technical Datasheet

Physical Dimensions

Shape: Hexagonal
Outer Width (flat to flat): 1.2 m
Wall Height: 0.5 m
Wall Thickness: 7-10 cm
Interior Planting Depth: 25-40 cm (adjustable)
Weight (empty): ~110-150 kg depending on mix
Base Footprint Area: $\approx 1.25 \text{ m}^2$

Material Specifications

Material: Marine-grade concrete OR geopolymers
Surface Texture: Smooth inner, textured outer
Color: Earth-tone brown, grey, or coral-pink
Additives: Optional: calcium carbonate or recycled aggregate

Planting Features

Center Hole: \varnothing ~25 cm for mangrove propagules
Drainage: Optional perforated holes
Outer Ring: Supports salt grasses or halophytes

Functional Add-ons

Locking Edges: Tongue-and-groove interlocking
Pipe Notch: Underside channel for 4" PVC pipe
Anchor Points: Cast-in loops or rods
Sensor Port: Guardian-compatible (pH, salinity, sediment)

Deployment Notes

Shipping: Stacked or side-laid on pallets
Placement: Manual (2-3 persons) or light machinery
Foundation: Requires sandbag berm base