

## Vmax P550 Specification



## Permanent Turf Reinforcement Mat

North American Green's P550 is made of a permanent, ultra-high-strength, three-dimensional matting structure incorporated with a permanent 100% polypropylene fiber matrix. P550 is specifically designed for hydraulic applications and can be used as an alternative to hard revetments, such as concrete revetments, gabion mattresses and blockstone. With large scale independent flume testing and hundreds of successful projects through the UK and the world the V-Max range is the most tried and tested vegetation revetment in the world.

The 100% polypropylene fiber matrix enhances the permanent matting structure's initial enhanced seed germination and erosion control properties, as well as its permanent vegetation reinforcement capabilities.

P550 is designed to provide long-term, pre-vegetated erosion protection and permanent turf reinforcement in an extensive range of severe applications that include extreme-flow channels, spillways, stream banks, and shorelines. P550 is proven to drive the shear resistance of vegetation to over 672 Pascal—a new maximum for vegetation reinforcement.

## Vmax P550 Performance Profile

### Phase 1 (unvegetated)



Unprotected seed and soil are highly susceptible to erosion. Upon installation, the P550's polypropylene fiber matrix and corrugated matting structure provide a uniform mulch layer and effective erosion protection for seed and soil under flow-induced shear stresses up to 191 Pascal or up to 3.8 m/s flow velocity.

**Phase 2**  
(vegetation establishment)



The tender stems and undeveloped root systems of immature vegetation provide little protection for the soil surface and are prone to damage or removal at shear stresses of only 29 Pascal.\* The P550 continues providing erosion protection between, and structural support for, developing plants – increasing the permissible shear stress of new vegetation up to 576 Pascal.

**Phase 3** (vegetation maturity)



Under flow-induced shear stress of only 48 Pascal, un-reinforced mature vegetation may allow significant soil loss and experience physical damage. The P550 reinforces soils and anchors vegetation roots and stems – increasing the permissible shear stress of the permanent vegetative stand up to 672 Pascal or flow velocities up to 6.7 m/s.

**Shear Strength Turf P**

Some hydraulic applications require the fully vegetated performance level of P550 on the day of installation. Salix pre-grow P550 incorporated with a mature grass turf: "Shear Stress Turf "P" can withstand flow velocities of over 6m/s on the day of installation. Please see our specification sheet for Shear Stress Turf P.



**Physical Specification**

**Top & Bottom Net**  
Polypropylene  
11.7 kg/100 m<sup>2</sup> approx. wt.

**Center Net**  
Polypropylene, corrugated  
27 kg/100 m<sup>2</sup> approx. wt.

**Polypropylene Fiber**  
0.27 kg/m<sup>2</sup> approx. wt

**Thread**  
Permanent

**STANDARD ROLL SPECIFICATIONS**

Width: 2 m  
Length: 15m  
Area: 30 m<sup>2</sup>  
Approx. Roll Weight: 21 kg

All performance testing has been undertaken by an independent research facility. A performance failure is deemed to be if any vegetation is damaged or stripped out or any physical damage to the matting or if more than 1.27cm of soil is lost anywhere in the test plot.

**CONTACT DETAILS**

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