



Coastal Protection - Geofabrics HPS14C

Geofabrics HPS14C has been successfully installed below the rock armour at Withernsea.

Nearly 70,000 tonnes of rock were imported from Norway each weighing up to 15,000kg. Rocks of this size were required to withstand the aggressive wave impact seen on the north-east coast, both now and in future, should climate change produce the expected worsening of sea conditions.

East Riding of Yorkshire Council recently disclosed historic land loss of 4m per year had increased to approximately 6m per year. In 2019, erosion opposite a seafront holiday park measured approximately 12m.

Geofabrics HPS14C is a thick needle punched non-woven geotextile manufactured from 100% virgin polypropylene high tenacity fibres containing 1% active carbon black. The main function of HPS14C is to prevent loss of the sub-soil from below the rock armour. With challenging low particle size subsoils, the HPS14C was ideal with its combined filtration and permeability characteristics whilst its high tensile elongation and CBR provided a robust solution capable of withstanding the rock impact during installation.

Project Information

Location	Withernsea, East Yorkshire
Product	HPS14C Geotextile
Client	East Riding of Yorkshire
Designer / Consultant	JBA
Main Contractor	BAM
Sub-contractor	RJT Excavations
Contract Period	April – December 2021

Early engagement with BAM allowed us to manufacture a bespoke roll length to suit the structure, reduce cutting and waste on site. Whilst this reduced cost it also delivered health & safety risk and sustainability gains.

The **benefits** of using Geofabrics HPS14C:

- **Easy installation** – 6m wide rolls
- **Manufactured for performance** – high tenacity fibre
- **Bespoke roll length** – minimising joints
- **Isotropic properties** – strength in all directions
- **High tensile elongation** – sufficient stretch during rock placement
- **Puncture resistance** – manufactured to CBR value taking into account rock weight, drop height and factor of safety
- **UV Stabilised** – active carbon black
- **100% virgin polymer Fibres** – 100 years durability

For more information on our Coastal Products please contact our Sector Manager - Chris Daykin at cdaykin@geofabrics.com