

Rock and slope stabilization using HPN System

General Description

Rock and slope stabilization using High Performance Netting consists essentially of High Performance Netting, ropes and a combination of mono bar anchor and spike plates with or without rope connection. The anchoring method and the rectangular grid for the anchors (offset) are dependent on geotechnical conditions on-site and must be defined together with the client at the beginning of the project. The transmission of the resulting forces into the ground must be provided. A detailed report must be written on the design of the anchoring.

General Information

Area to cover [m²]: e.g. 1000

Ultimate load state and serviceability must be verified for the chosen anchor grid. The bearing ropes within the spectrum of the anchor raster shall have a non-positive connection with the spike plates in order to prevent the global collapse of the system after failure of a rope due to local overloading.

Technical System Parameters

The design of main structures and of single components must be such as described below (or equal / better). Individual components not cited herein must correspond to the appropriate technical standards (e.g. DIN).

Net

Type:	rectangular wire netting
Corrosion prevention:	coating class A - EN 10244-2 (min. 280gr/m ²)
Maximum mesh size:	50x50 mm
Wire Ø:	4.6 mm
Incircle Ø of mesh:	~45 mm
Tensile strength longitudinal:	150 kN/m
Tensile strength transversal:	150 kN/m
Tensile strength single wire:	550-650 N/mm ²
Weight:	5,6 kg/m ²
Connection to bearing ropes:	sewed using sewing rope (4mm)

Ropes

Type:	according to EN 12385-4
Corrosion prevention:	galvanized
Connection to spike plates:	fixed by clamps

Spike plates

Types:	- without non-positive rope connection - with non-positive rope connection for 1 rope
Corrosion prevention:	galvanized

Anchoring

Ropes:	Wire Rope Anchor
Spike plates:	Mono bar anchor