

STEEL WIRE ROPES FOR ROCKFALL PROTECTION WORKS

A steel wire rope consists of a number of strands wrapped helically around a core. Each strand consists of a number of individual steel wires laid around a central wire.

There are a wide variety of wire ropes designed for a range of uses and operating conditions. The wire rope types are designated by core type:

- Number of strands
- Number, size and arrangement of wires in the strand
- Method of winding of strands and wires

Within rockfall protection applications, steel wire ropes are an important component of the solution. In rockfall protection barrier kits, wire ropes form the bracing ("guy") and support ropes and are also used in the manufacture of interception nets.

Steel wire ropes are used in simple drapery systems to secure the netting/mesh system at the crest and foot of the slopes, and in surface stabilisation systems to form an armoured revetment. The most appropriate steel wire ropes used in these applications have a synthetic core (FC Type) as they offer a good breaking load resistance, good flexibility and ease of installation due to their lower weight.

All ropes supplied by Maccaferri meet UNI EN 12385-4 (ISO 2408), grade 1770 N/mm².

Commonly, within rockfall protection, the steel ropes are Class B zinc coated in accordance with UNI EN10264-2. The standard coil length is 1000m.

Quantity request

When a quotation is required, please specify:

- Cable diameter (in m)
- Core type (fiber core or steel core)
- Zinc coating (Class B)

Example 1: 1000 m, 8 mm Steel Cable 6x7+FC, Class B zinc coating

Example 2: 1000 m, 16 mm Steel Cable 6x19+WSC, Class B zinc coating



Steel Rope used to reinforce the mesh and secure the net at the toe of the slope



Steel rope used to fix the net at the base of the slope

Standard steel cables for rockfall netting works								
Characteristic data			Fibre core			Steel core		
Rope nom. diameter Ø [mm]	Wire tensile strength (grade) [N/mm ²]	Construction type	Core	Weight [kg/m]	Breaking load [kN]	Core	Weight [kg/m]	Breaking load [kN]
8	1770	6x7	FC	0.221	37.6	WSC	0.246	40.7
10	1770	6x19	FC	0.346	53.3	WSC	0.400	63.0
12	1770	6x19	FC	0.498	78.2	WSC	0.576	90.7
14	1770	6x19	FC	0.678	106.5	WSC	0.784	124.0
16	1770	6x19	FC	0.886	139.1	WSC	1.020	161.0

WARNING: Install the product in accordance with National Security Requirements! If the job is done with suspension or security ropes, personal protective equipment against fall risk must be connected with anchor points in agreement with EN 795.

Maccaferri reserves the right to amend product specifications without notice and specifiers are requested to check as to the validity of the specifications they are using.