

Double Corrosion Rock Bolts & Cables

DCP Cable Bolt – 21.8mm



Features:

- Durable, high density, polyethylene (HDPE), corrugated sheath provides superior corrosion protection achieving a 100 year design life
- Corrugations in sheathing provide excellent load transference between inner and outer grout annuli
- Low profile head connection when compared to alternative barrel and wedge torque tension devices
- Fully encapsulated in high strength thixotropic grout
- Dome ball washer allows for plate/bolt angular misalignment up to 15 degrees
- Mechanical anchor allows cable to be pre-tensioned up to 50kN
- Cable is flexible and easy to handle in tight working areas due to the multi-strand construction
- Easily accessible for post-installation testing
- Grout bell and face plates are available in Gr. 316 stainless steel for superior corrosion resistance
- Face plates available with handle bars to allow shear connection with shotcrete lining
- Available in lengths up to 12.0m
- Typical lengths: 5.5 – 9.0m

- Continued

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Cable

Cable diameter (mm)	Yield Strength (kN)	Breaking Load (kN)	Elongation at Failure (%)	Drill Hole Size (mm)
18.0 (7 Wires)	289	360	>3.5	57
21.8 (19 Wires)	525	590	>3.5	64

Cable Sheath

Property	Test Method	Cell Class	Acceptance Criteria	Test Results
Density	ASTM D1505	3	>0.940 – 0.947 g/cm ³	0.948 g/cm ³
Melt Index	ASTM D1238	3	<0.4 – 0.15 g/ 10 min	0.3g/10 min
Flexural Modulus	ASTM D790	5	758 – 1103 MPa	790 MPa
Tensile Strength	ASTM D638	4	21-24 MPa	22.9MPa
Slow Grout Crack Resistance	ASTM D638 / ASTM F1473	3	Test Condition – C duration – 192 h; Max. Failure rate – 20%	Failure Rate – 0% Duration – 200 h
Hydrostatic Strength Classification	ASTM D2837	3	8.62 MPa	8.62 MPa
Colour		C	2.0% - 3.0 % Carbon Black	2.0% - 3.0% Carbon Black
Softening point (BS 2782:part 1)	BS 2782:part 1		>110 C	120 C
Hardness (Shore D)	BS 2782: part 1		>50	55
Water Absorption at 23 C	ASTM D570		<0.5%	0.2%

Sheathing Corrugations must be uniform and generally sinusoidal in shape, conforming to the following:

1. Wall Thickness (w) of Ducts: $w > 2\text{mm}$
2. Pitch of corrugations (p): $6w \leq p \leq 12w$
3. Amplitude of corrugations (a): $a > 3w$

The profile must not allow voids to be formed in the grout column

Face Plate and Grout bell are supplied in 316 Stainless steel in accordance with AS1449:1994 or equivalent and are electrically isolated from dissimilar metals to prevent galvanic corrosion.

Mechanical anchor allows the cable to be pre-tensioned up to 50kN Cable Bolt.

Conformance Certificates provided for all