

ROCK BOLTS

COMPOSITE ROCK BOLT SPECIFICATIONS

REVISION: June 2019

Rock bolts

		†20 mm	22 mm	25 mm	†29 mm	†32 mm
Ultimate tensile load	kN	280	350	490	650	790
	lbs	62 793	78 491	109 888	145 770	177 166
Tensile modulus*	GPa	53				
	Msi	7.7				
Reinforcement content	%	82				
Glass transition temperature	°C	110				
	°F	230				
Transverse shear strength (single shear)	kN	58	75	85	110	122
	lbs	13 007	16 820	19 062	24 669	27 360
Unit weight	kg/m	0.58	0.70	0.94	1.26	1.50
	lbs/ft	0.39	0.47	0.63	0.84	1.01

Standard Nuts

		†20 mm	22 mm	25 mm	†29 mm	†32 mm
Punch-out torque	m/kg	7.6	8.3	9.0	9.7	—
	ft/lb	55	60	65	70	—
Tensile capacity (Tested with composite rockbolt)	kN	65	85	110	120	—
	lbs	14 577	19 062	24 669	26 911	—
Hex size	mm	38	38	44	50	50
	in	1 ½	1 ½	1 ¾	1 15/16	1 15/16
Length	mm	51			63.5	
	in	2			2 ½	
Thread engagement length (prior to punch-out)	mm	41			54	
	in	1 5/8			2 1/8	

* Tensile modulus is based on the working area of the rock bolt and not the nominal size.

** Various types of washers such as swivel or high capacity plates can be made according to the customers needs and applications.

† Products in prototype development phase, values to be validated.

Fixed square heads

(molded on rock bolts)

		20 mm	22 mm	25 mm	†29 mm
Head tensile capacity	kN	100	110	—	—
	lbs	22 426	24 669	—	—
Square drive size	mm	28.5	28.5	—	—
	in	1 1/8	1 1/8	—	—
Head Length	mm	100			
	in	3.94			

Standard Washer Plate**

		†20 mm	22 mm	25 mm	†29 mm	†32 mm
Standard flat washer plate diameter	mm	190				
	in	7 ½				
Maximum compression load capacity	kN	50	50	65		
	lbs	11 200	11 200	14 500		
Flexural load capacity (Parallel 155 mm span)	kN	3 344				
	lbs	750				



- The entire length of the Rock bolts are threaded.
- Available in both left hand and right hand threads.
- Rock bolt standard lengths up 10 feet (other lengths available upon request).