



SURE-FAST

INDUSTRIAL FASTENERS

Mechanical Testing

Sure-Fast Metric Flanged Purlin Bolts and Nuts were tested to ensure meeting the requirements of AS 4291.1-2015.

Bolt & Nut Type: Metric Flanged Purlin Bolts M16 x 35mm

Head Type: Hexagon Head

Coating Type: Zinc

Table 1: M16 x 35mm Bolts

4	PC 8.8	"SFC 8.8"	M16 x 35mm	91.0	4	144.7	See Comments*	29	30	29.5	30
5	PC 8.8	"SFC 8.8"	M16 x 35mm	91.0	2	143.6	See Comments*	-	-	-	-
6	PC 8.8	"SFC 8.8"	M16 x 35mm	91.0	7	144.8	See Comments*	-	-	-	-
Requirements		Min.:				125.0					22
		Max.:			12.5						32

Bolt Sample Detail Comments:

M16 x 2.00mm Coarse Pitch Thread, Hex Head Flanged Bolts, 35mm Thread Length.

Wedge Tensile Test Observations:

Tests 1 to 4: Fractured in the free threaded length of the bolt.

Tests 5 to 6: Necked in the free threaded length of the bolt.

All bolts meet the requirements of AS 4291.1-2015 for the properties as reported herein.

Table 2: M16 Flanged Nuts

Nut Size	Product I.D.	Nut Markings	Proof Load No.	Proof Load (kN)	Test Comments	Hardness Test No.	Vickers Hardness HV			Hardness Average HV	Specified Range HV	Test Comments
M16 × 2.00mm	PC 8	"S 8"	4	138.2	Pass	2	246	253	247	249	200-302	Pass
M16 × 2.00mm	PC 8	"S 8"	5	138.2	Pass	-	-	-	-	-	-	-
M16 × 2.00mm	PC 8	"S 8"	6	138.2	Pass	-	-	-	-	-	-	-

Nut Sample Comments:

Sample Nominal Dimensions:

M16 x 2.00mm Corse Pitch Thread Flanged Nuts: Thickness = 15.6mm; Width A/F = 23.8mm; Flange \varnothing = 32.3mm

At completion of proof load testing all nuts were able to be unthreaded by hand. Therefore, all nuts were deemed to have passed the proof load test in accordance with AS/NZS 4291.2-2016.

The recorded hardness of each nut is within the range as specified in AS/NZS 4291.2-2016 Table 6, therefore the nuts have passed the hardness test.