

ASTM F568 10.9

ALLOY STEEL

BOLTING MATERIAL FOR STRUCTURAL PURPOSE

ASTM F568 defines materials used for manufacturing a broad category of fasteners with a wide variety of materials strengths. All metric fasteners are made using materials that are specified in ASTM F568. Some classes of bolts in the F568 family that are essentially equivalent to some common types of structural bolts are the following: Class 10.9 mechanical properties are essentially the same as A490 Types 1 and 2

Chemical Properties

C	P	S
Max	Max	Max
0.25-0.55	0.048	0.058

Mechanical Properties

Yield strength	Tensile strength	Elongation	Reduction	Hardness
Mpa	Mpa	%	%	BHN
min	min	min	min	
940	1040	9	35	33-39

Proof Load Values, kN

Nominal Product Diameter & Thread Pitch

	M5 X 0.8	M6 X 1	M8 X 1.25	M10 X 1.5	M12 X 1.75	M14 X 2	M16 X 2	M20 X 2.5	M22 X 2.5	M24 X 3	M27 X 3
Method 1	11.8	16.7	30.4	48.1	70.0	95.5	130	203	251	293	381
Method 2	13.3	18.9	34.4	54.5	79.2	108	148	230	285	332	431

	M30 X 3.5	M36 X 4	M42 X 4.5	M48 X 5	M56 X 5.5	M64 X 6	M72 X 6	M80 X 6	M90 X 6	M100 X 6
	466	678	930	1220	1680	2220	2870	3600	4640	5800
	527	763	1050	1380	1910	2520	3250	4080	5250	6570

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Heat Treatment

Quenched & Tempered @ 425°C

CUSTOMER ASSISTANCE : customer@TorqBolt.com