Mechanical Property			Property Class										
			3.6	4.6	4.8	5.6	5.8	6.8	8.81)		9.83)	10.9	12.9
									d< 16mm	d> 16mm 2)			
Tensile Strength, *Rm* 4)5), N/mm²		nom.	300	400		500		600	800	800	900	1000	1000
		min.	330	400	420	500	520	600	800	830	900	1040	1220
Vickers Hardness, HV, $F \geq 98$ N		min.	95	120	130	155	160	190	250	255	290	320	385
		max.	250						320	335	360	380	435
Brinell Hardness, HB, $F = 30D^2$		min.	90	114	124	147	152	181	238	242	276	304	366
		max.	238						304	318	342	361	414
Rockwell Hardness, HR	min.	HRB	52	67	71	79	82	89	-	-	-	-	-
		HRC	-	-	-	-	-	-	22	23	28	32	39
	max.	HRB	99.5						-	-	-	-	-
		HRC	-						32	34	37	39	44
Surface Hardness, HV 0,3		max.	-						5)				
Lower Yield Stress, R_{eL} 7), N/mm²		nom.	180	240	320	300	400	480	-	-	-	-	-
		min.	190	240	340	300	420	480	-	-	-	-	-
Proof Stress, $R_{p0,2}$, N/mm²		nom.	-						640	640	720	900	1080
		min.	-						640	660	720	940	1100
Stress under proofing load, S_p	Sp/ReL or Sp/Rp0,2		0.94	0.94	0.91	0.93	0.9	0.92	0.91	0.91	0.90	0.88	0.88
	N/mm²		180	225	310	280	380	440	580	600	650	830	970
Elongation after fracture, A		min.	25	22	14	20	10	8	12	12	10	9	8
Impact Strength, *J*		min.	-			25	-		30	30	25	20	15

1. For bolts of property class 8.8 in diameters d <16mm, there is an increased risk of nut stripping in the case of inadvertant over-tightening inducing a load in excess of proofing load. Reference to ISO 898-2 is recommended

2. For structural bolting the limit is 12mm

3. Applies only to nominal thread diameters d <16mm

4. Minimum tensile properties apply to products of nominal length l>2,5d. Minimum hardness applies to products of length l<2,5 d and other products which cannot be tensile-tested (e.g. due to head configuration).

5. Surface hardness shall not be more than 30 vickers points above the measured core hardness on the product when readings of both surface and core are carried out at HV 0,3. For property class 10.9, any increase in hardness at the surface which indicates that the surface hardness exceeds 390 HV is not acceptable.

6. In case where the lower yield stress R eL can not be determined, it is permissible to measure the proof stress R p0,2