

Mechanical properties at ambient temperature for flat and long products of steel grades and qualities with values for the impact strength

Designation		Minimum yield strength R_{eH}^a										Tensile strength R_m^a				
		MPa ^b										MPa ^b				
		Nominal thickness										Nominal thickness				
		mm										mm				
According to EN 10027-1 and CR 10260	According to EN 10027 - 2	≤ 16	> 16 ≤ 40	> 40 ≤ 63	> 63 ≤ 80	> 80 ≤ 100	> 100 ≤ 150	> 150 ≤ 200	> 200 ≤ 250	> 250 ≤ 400 ^c	< 3	≥ 3 ≤ 100	> 100 ≤ 150	> 150 ≤ 250	> 250 ≤ 400 ^c	
S235JR	1.0038	235	225	215	215	215	195	185	175	-	360 to 510	360 to 510	350 to 500	340 to 490	-	
S235JO	1.0114	235	225	215	215	215	195	185	175	-	360 to 510	360 to 510	350 to 500	340 to 490	-	
S235J2	1.0117	235	225	215	215	215	195	185	175	165	360 to 510	360 to 510	350 to 500	340 to 490	330 to 480	
S275JR	1.0044	275	265	255	245	235	225	215	205	-	430 to 580	410 to 560	400 to 540	380 to 540	-	
S275JO	1.0143	275	265	255	245	235	225	215	205	-	430 to 580	410 to 560	400 to 540	380 to 540	-	
S275J2	1.0145	275	265	255	245	235	225	215	205	195	430 to 580	410 to 560	400 to 540	380 to 540	380 to 540	
S355JR	1.0045	355	345	335	325	315	295	185	275	-	510 to 680	470 to 630	450 to 600	450 to 600	-	
S355JO	1.0553	355	345	335	325	315	295	185	275	-	510 to 680	470 to 630	450 to 600	450 to 600	-	
S355J2	1.0577	355	345	335	325	315	295	185	275	265	510 to 680	470 to 630	450 to 600	450 to 600	450 to 600	
S355K2	1.0596	355	345	335	325	315	295	185	275	265	510 to 680	470 to 630	450 to 600	450 to 600	450 to 600	
S450JO ^d	1.0590	450	430	410	390	380	380	-	-	-	-	550 to 720	530 to 700	-	-	

^a For plate, strip and wide flats with widths ≥ 600 mm the direction transverse (t) to the rolling direction applies. For all other products the values apply for the direction parallel (l) to the rolling direction.

^b 1 Mpa = 1 N/mm²

^c The values apply to flat products.

^d Applicable for long products only.