

EN10028-2

FLAT PRODUCTS MADE OF STEELS FOR PRESSURE PURPOSES

Part 3: Weldable fine grain steels, normalized



EN10028-3 standard specifies the delivery standards and specifications for flattened and collapsed fine grain steel for flattened steel products. EN10028-3 standard main steel grade: P275NH, P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2, P460NH and so on.

Standard: EN10028-3
Grade : P275NH, P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2, P460NH, P460NL1
Thickness : 8mm -360mm
Width : 1000mm-4000mm
Length : 1000mm-20000mm

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MOQ: 1 PC
Product type : Steel plate
Delivery time : Promptly (Stock) or 10-40 days (Production)
Stock : Available
MTC: Available
Delivery condition: Hot Rolled or Normalized

Table 1 – Chemical composition (cast analysis) ^a

Steel grade		% by mass															
name	number	C	Si	Mn	P	S	Al _{total}	N	Cr	Cu	Mo	Nb	Ni	Ti	V	Nb + Ti + V	
		max.	max.		max.	max.	min.	max.	max.	max.	max.	max.	max.	max.	max.	max.	
P275NH	1.0487	0,16	0,40	0,80 ^b to 1,50	0,025	0,015	0,020 ^{c,d}	0,012	0,30 ^e	0,30 ^e	0,08 ^e	0,05	0,50	0,03	0,05	0,05	
P275NL1	1.0488																
P275NL2	1.1104				0,020	0,010											
P355N	1.0562	0,18	0,50	1,10 to 1,70	0,025	0,015	0,020 ^{c,d}	0,012	0,30 ^e	0,30 ^e	0,08 ^e	0,05	0,50	0,03	0,10	0,12	
P355NH	1.0565																
P355NL1	1.0566																
P355NL2	1.1106				0,020	0,010											
P460NH	1.8935	0,20	0,60	1,10 to 1,70	0,025	0,015	0,020 ^{c,d}	0,025	0,30	0,70 ^f	0,10	0,05	0,80	0,03	0,20	0,22	
P460NL1	1.8915																
P460NL2	1.8918				0,020	0,010											

^a Elements not listed in this table shall not be intentionally added to the steel without the agreement of the purchaser except for finishing the cast. All appropriate measures shall be taken to prevent the addition from scrap or other materials used in steelmaking of these elements which may adversely affect the mechanical properties and usability.

^b For product thicknesses < 6 mm, a minimum Mn content of 0,60 % is permitted.

^c The Al_{total} content may fall short this minimum if niobium, titanium or vanadium are additionally used for nitrogen binding.

^d If only aluminium is used for nitrogen binding, a ratio $\frac{Al}{N} \geq 2$ shall apply.

^e The sum of the percentages by mass of the three elements chromium, copper and molybdenum shall not exceed 0,45 %.

^f If the percentage by mass of copper exceeds 0,30 %, the percentage by mass of nickel shall be at least half the percentage by mass of copper.

Table 4 – Tensile properties at room temperature

Steel grade		Usual delivery condition	Product thickness t mm	Yield strength R_{eH} MPa min.	Tensile strength MPa	Elongation after fracture A % min.			
name	number								
P275NH, P275NL1, P275NL2	1.0487, 1.0488, 1.1104	+N ^a	≤ 16	275	390 to 510	24			
			16 < t ≤ 40	265					
			40 < t ≤ 60	255					
						60 < t ≤ 100	235	370 to 490	23
						100 < t ≤ 150	225	360 to 480	
						150 < t ≤ 250	215	350 to 470	
P355N, P355NH, P355NL1, P355NL2	1.0562, 1.0565, 1.0566, 1.1106	+N ^a	≤ 16	355	490 to 630	22			
			16 < t ≤ 40	345					
			40 < t ≤ 60	335					
						60 < t ≤ 100	315	470 to 610	21
						100 < t ≤ 150	305	460 to 600	
						150 < t ≤ 250	295	450 to 590	
P460NH, P460NL1, P460NL2	1.8935, 1.8915, 1.8918	+N ^b	≤ 16	460	570 to 720 ^d	17			
			16 < t ≤ 40	445					
			40 < t ≤ 60	430					
						60 < t ≤ 100	400	540 to 710	c
						100 ≤ t ≤ 250	c	c	

^a See 8.2.2.
^b See 8.2.1.
^c •• Values may be agreed at the time of enquiry and order.
^d For product thicknesses up to 16 mm, a maximum value of 730 MPa is permitted.

We are a professional EN10028-3 steel stockist and supplier. We can supply different product type and grades of EN10028-3 . If you have any need of THE steel please do not hesitate to contact us .

P275NH, P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2,
P460NH, P460NL1