

UNI EN 10120

CHEMICAL COMPOSITION OF CASTING¹

Quality	Numerical Designation	C max.	Si max.	Mn max.	P max.	S max.	Al % min ²	N max. ³	Nb max.	Ti % max
P245NB	1.0111	0,16	0,25	0,30	0,025	0,015	0,020	0,009	0,050	0,03
P265NB	1.0423	0,19	0,25	0,40	0,025	0,015	0,020	0,009	0,050	0,03
P310NB	1.0437	0,20	0,50	0,70	0,025	0,015	0,020	0,009	0,050	0,03
P355NB	1.0557	0,20	0,50	0,70	0,025	0,015	0,020	0,009	0,050	0,03

1) Elements not included in this table may not be added intentionally to the steel without the consent of the customer, except for the casting process. All appropriate precautions must be taken to avoid the addition of those elements, from scrap or other raw materials used in the production process, which may compromise its mechanical characteristics and usability.

2) The aluminium content may be partly replaced by a content of Nb $\leq 0.050\%$ and/or a Ti content of 0.03% . If this is the case, the content of these elements shall be indicated in the control document.

3) If the total Al / N ratio is ≥ 2.2 or if Nb and Ti are added, the nitrogen content may be $\leq 0.012\%$

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MECHANICAL CHARACTERISTICS²

Designation		Superior unit yield load ReH Mpa min	Tensile strength ¹ Rm Mpa	Elongation after fracture A for product thickness t in mm t < 3 (LO = 80 mm) % min.	Elongation after fracture A for product thickness t in mm % max.	Normalisation temperature (value orientation) °C
Quality	Numerical Designation					
P245NB	1.0111	245	360 to 450	26	34	900 to 940
P265NB	1.0423	265	410 to 500	24	32	890 to 930
P310NB	1.0437	310	460 to 550	21	28	890 to 930
P355NB	1.0557	310	510 to 620	19	24	890 to 920

1) TRANSVERSE TENSILE TEST IN ROLLING DIRECTION.

2) The mechanical characteristics are defined on the product after normalisation (value orientation).
Stability time according to thickness.