P265GH Boiler Plate

OMEGA STEEL CO.
Istanbul · Dilovası plant

1.0425 · P265GH is the workhorse pressure-vessel plate of EN 10028-2: 265 MPa yield, 410–530 MPa tensile, certified 0.2 % proof strength up to 400 °C (153 MPa at 300 °C), aluminium-killed and normalised. Material number 1.0425, successor of DIN H II, comparable to ASTM A516 Grade 60. It builds steam boilers, air receivers, heat-exchanger shells and autoclaves; we hold 6–20 mm in limited stock at Dilovası and roll 3–100 mm to order.

1.0425 | Yield ≥ 265 MPa | Rp0.2 at 300 °C ≥ 153 MPa | 6–20 mm stock | 3–100 mm to order

If a boiler maker in Konya, Baghdad or Bucharest orders "boiler plate" without a grade, they get P265GH. It is the reference material of the European pressure-vessel codes, the grade with the most heats on the Turkish mill programmes and the one we keep on the floor in the thicknesses a steam-boiler shop uses every week.

CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	Al	Cr	Cu	Mo	Ni	N
max. % (ladle)	≤ 0.20	≤ 0.40	0.80–1.40	≤ 0.025	≤ 0.010	≥ 0.020	≤ 0.30	≤ 0.30	≤ 0.08	≤ 0.30	≤ 0.012

Nb ≤ 0.020, Ti ≤ 0.03, V ≤ 0.02; Cr + Cu + Mo + Ni ≤ 0.70. CEV ≤ 0.40 typical.

MECHANICAL PROPERTIES

Thickness	Yield ReH min (MPa)	Tensile Rm (MPa)	Elongation A min	Impact KV
≤ 16 mm	265	410–530	22 %	27 J at +20 °C (40 J long.)
> 16–40 mm	255	410–530	22 %	27 J at +20 °C
> 40–60 mm	245	410–530	22 %	27 J at +20 °C
> 60–100 mm	215	400–520	21 %	27 J at +20 °C
Rp0.2 at 100 / 200 / 300 / 400 °C (≤ 16 mm)	223 / 186 / 153 / 130	—	—	—

EQUIVALENT GRADES

System	Grade	Note
DIN 17155	H II	direct predecessor
ASTM	A516 Gr. 60	220 MPa yield, 415–550 tensile
ASTM	A285 Gr. C (near)	
JIS G3103 / G3115	SB410 / SPV235	
GB 713	Q245R	
BS 1501	161-430A	historic

THICKNESS RANGE AND STOCK SIZES

Thickness	Widths × lengths	Availability
3–5 mm	1 500 × 6 000	to order 1–3 weeks
6–20 mm	1 500 / 2 000 / 2 500 × 6 000	stock, limited
25–40 mm	2 000 / 2 500 × 6 000–12 000	to order 1–3 weeks
50–100 mm	2 000–2 500 × 6 000	to order 3–5 weeks, UT

STANDARDS

EN 10028-2:2017 — P265GH, 1.0425 · DIN 17155 — H II (withdrawn) · PED 2014/68/EU; AD 2000 W1 · EN 10029 class A/B; EN 10160 S1/E1 on request