

MERCHANT BARS

SQUARES - FLATS - ROUNDS - EQUAL ANGLES - IPE - UPN



TECHNICAL SPECIFICATIONS



TYPE:

Hot-Rolled UPN Channels



STEEL GRADE:

- S235JR according to ELOT-EN 10025 (St 37-2 according to DIN 17100)
- S275JR according to ELOT-EN 10025 (St 44-2 according to DIN 17100)
- S355J2 according to ELOT-EN 10025 (St52-3 according to DIN 17100)



FORM - DIMENSIONS:

Straight Bars with height 30mm and from 80mm up to 140mm



LENGTH - TOLERANCE:

Beam length 6m with tolerance -0 / +100mm



PACKING - WEIGHT:

Bundles weighing approximately 2,000kg



DIMENSIONS - WEIGHT - TOLERANCES:

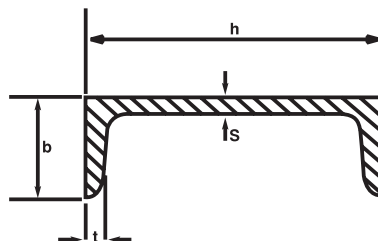
According to EN 10279 (DIN 1026)

UPN

Hot-Rolled UPN Channels



UPN bars are manufactured at SIDENOR's factory in Thessaloniki, at a length of 6 metres and with a section height of 30mm, as well as at STOMANA's factory in Bulgaria, at lengths of 6 and 12 metres and with section heights ranging from 80mm to 140mm. Light UPN bars (30mm) are used mostly for making traditional railings, in combination with squares, while the heavier bars (UPN from 80 to 140mm) are used mainly in metal building frames, coachworks, car carriers, machine parts, and supporting structures for roofs, etc.



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STEEL CHEMICAL COMPOSITION & MECHANICAL PROPERTIES

STEEL GRADE	CHEMICAL COMPOSITION			MECHANICAL PROPERTIES		
	C (%) max	P (%) max	S (%) max	YIELD STRENGTH (N/mm ²) min	TENSILE STRENGTH (N/mm ²)	ELONGATION 5d ₀ (%) min
S235JR (St 37-2)	0.170	0.040	0.040	235	360 - 510	26
S275JR (St 44-2)	0.210	0.040	0.040	275	410 - 560	23
S355J2 (St 52-3)	0.200	0.030	0.030	355	470 - 630	22

DIMENSIONS, WEIGHTS & TOLERANCES OF UPN CHANNELS

NOMINAL	DIMENSIONS (mm)								NOMINAL CROSS SECTION (cm ²)	NOMINAL WEIGHT (kg/m)	NOMINAL SURFACE AREA (m ² /m)	SECTION MODULUS	
	h	PERMISSIBLE VARIATION FOR h	b	PERMISSIBLE VARIATION FOR b	s	PERMISSIBLE VARIATION FOR s	t	PERMISSIBLE VARIATION FOR t				W _x	W _y
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				(cm ³)	(cm ³)
30	30	±2.00	15	±1.50	4	±0.50	4.5	±0.50	2.21	1.74	0.103	1.69	0.39
80	80		45		6		8		11.00	8.64	0.312	26.50	6.36
100	100		50		6		8.5		13.50	10.60	0.372	41.20	8.49
120	120		55		7		9		17.00	13.40	0.430	60.70	11.10
140	140		60		7		10		20.40	16.00	0.490	86.40	14.80