

Ympress® Laser E250C

Strong, consistent and highly formable

Ympress Laser E250C is a hot-rolled structural steel. It is optimised for efficient laser cutting and post-cut processing. The product combines high strength with outstanding formability and consistent quality. It replaces conventional construction steel for applications where high strength and good formability are essential. These include building and construction profiles, racking and shelving.

Ympress Laser E250C offers exceptional flatness, minimised internal stress and high-quality surfaces. Consistent product characteristics ensure fast, reliable automated processing for increased productivity and improved part yield. A clean-cut edge – even at high cutting speeds – allows simple release of cut parts and reduces post-cut work. Suitable also for conventional cutting methods, Ympress Laser E250C can be easily welded and galvanised.

Mechanical properties (transverse to the rolling direction)

	Min. yield strength	Min. - Max. tensile strength	Elongation after fracture A			Min. bend test diameter at 180°*
			t < 3mm	3mm ≤ t < 5mm	t ≥ 5mm	
	R _{eh} in MPa	R _m in MPa	L ₀ = 80mm	L ₀ = 5.65√S ₀ mm (%)	L ₀ = 5.65√S ₀ mm (%)	
Typical value	285	430	26	34	30	-
Guaranteed	≥ 240	370-490	23	24	24	0.5 t
EN-10025-2 S235J2	235	360-510	19	24	24	-

* ≤ 180° bend radius, measured transverse to the rolling direction
t = material thickness in mm

Chemical composition (% by weight)

	C	Si	Mn	P	S	Cu	Al _{tot}	Ceq*	Ceq*
								< 6mm	> 6mm
Guaranteed	≤ 0.17	≤ 0.030	≤ 1.10	≤ 0.025	≤ 0.020	≤ 0.070	≥ 0.015	0.20	0.28
EN 10025-2 S235J2	≤ 0.17	-	≤ 1.40	≤ 0.025	≤ 0.025	≤ 0.550	-	-	-

*Ceq is a typical value

Impact strength (optional and parallel to the rolling direction)

		Impact test		
		J at -20°C	J at 0°C	J at 20°C
Guaranteed*	6 < d ≤ 12.7mm	≥27	≥27	≥27
	12.7 < d ≤ 20mm		≥27	≥27
EN 10025-2 S235J2		≥27		
EN 10025-2 S235J0			≥27	
EN 10025-2 S235JR				≥27

* The impact values above are only guaranteed if accepted on order

Tolerances on thickness

Ympress Laser products comply to ½ 10051:2010. Tighter tolerances are available on request.

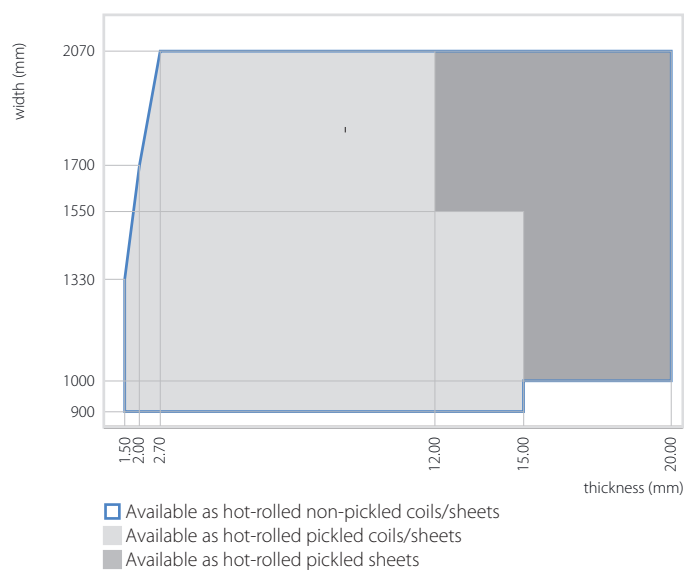
Certification

A 2.2 certificate is issued as standard with Ympress Laser products. Other certificate types are available on request.

Product support

We want you to get the best from Ympress Laser products. Our technical engineers and trained sales staff are always happy to answer your questions on steel selection and application. Our engineers are available to assist you with process and product design optimisation for improved throughput, yield and end product performance.

Available dimensions of Ympress® Laser E250C



Ympress® Laser range

Steel grades:	E250C, S355MC, S420MC
Thickness range: (sheets)	1.5 - 20mm (grade specific)
Width range:	900 - 2070mm
Surface treatment:	Hot rolled dry, pickled and oiled

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IN0117:750:EN:1017

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