



High strength cold formed hollow sections suitable for construction and mechanical applications where controlled specifications and associated design regulations apply.

COLD 355 hollow sections are supplied with a minimum yield strength of 355 N/mm² and fully comply with the European Standard for cold formed structural hollow sections, EN10219: S355J2H.



INSPECTION AND TESTING

COLD 355 hollow sections EN10219: S355J2H are subject to specific inspection and testing and are supplied with an inspection certificate type 3.1 to EN10204.

DESIGNATION

COLD 355 hollow sections are designated by their product name, outside dimensions and thickness in millimetres.

DUAL CERTIFIED TO CE AND UKCA

All **COLD 355** material is CE marked and is fully compliant with the Construction Products Directive.

COLD 355 is produced from fully-killed steel – critical to formability and weldability.

EXAMPLES

Circular hollow section:

COLD 355 114.3 x 5.0

or **114.3 x 5.0 CHS EN10219: Part 1: S355J2H**

Rectangular hollow section:

COLD 355 100 x 50 x 4.0

or **100 x 50 x 4.0 RHS EN10219: Part 1: S355J2H**

CHEMICAL COMPOSITION AND MECHANICAL PROPERTIES

Yield strength R _{eh} min N/mm ²	Tensile strength R _m N/mm ²		Elongation % min L ₀ = 5,65 √S ₀ specimen	Impact strength 10mm x 10mm	Chemical composition % max					Carbon equivalent (CEV) max
	T < 3	3mm ≤ T ≤ 40mm			C	Si	Mn	P	S	
T ≤ 16mm	T < 3	3mm ≤ T ≤ 40mm	T ≤ 40mm	°C J	C	Si	Mn	P	S	
355	510-680	470-630	20*	-20 27	0.22	0.55	1.60	0.030	0.030	0.45

* For section sizes D/T < 15 (circular) and (B+H)/2T < 12.5 (square/rectangle) min elongation is reduced by 2%.



DIMENSIONAL TOLERANCES EN10210: PART 2

	Circular	Square/Rectangular	
Outside dimension (D B and H)	±1% with a min of ±0.5mm and maximum of ±10mm	Side length (mm) H,B < 100 100 ≤ H,B ≤ 200 H,B > 200	Tolerance ±1% with a min of ±0.5mm ±0.8% ±0.6%
Thickness (T)	For D ≤ 406.4mm T ≤ 5mm ±10% T > 5mm ±0.50mm For D > 406.4mm ±10% with a max of ±2mm	T ≤ 5mm T > 5mm	±10% ±0.50mm
Out of roundness (O)	2% for D/T < 100, where D/T ≥ 100 out-of-roundness tolerance to be agreed	-	
Concavity/Convexity (independent tolerance on outside dimensions)	-	Max 0.8% with a min of 0.5mm	
Squareness of side	-	90° ± 1°	
External corner profile (radius need not be tangential to the sides) EN10219: Part 2 Table 3	-	T ≤ 6.0 6.0 < T ≤ 10.0 T > 10.0	1.6T to 2.4T 2.0T to 3.0T 2.4T to 3.6T
Twist (V)	-	2mm plus 0.5mm/m length	
Mass (M)	±6% on individual lengths	±6% on individual lengths	
Straightness	0.20% of total length & 3mm over any 1m length	0.20% of total length & 3mm over any 1m length	
Length	+150mm/-0mm	+150mm/-0mm	

Disclaimer:

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.


Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.


As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.



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