

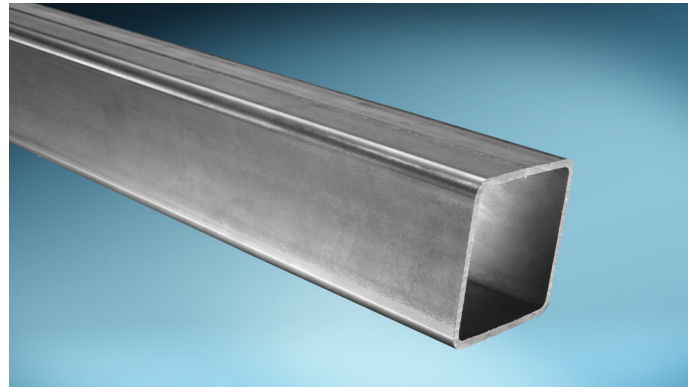
Forcon® 355

Tubes to EN 10219: S355J2H

Forcon® is our range of cold formed structural hollow sections to EN 10219, available with minimum yield strengths ranging from 235 MPa to 700 MPa.

The grade S355J2H is suitable for a wide variety of applications in construction or mechanical engineering.

Our Forcon® hollow sections are available in a range of popular sizes as well as with the option TT for Tailored Tubes with customised extras.



Forcon® 355 fully complies with the European standard for cold formed welded structural hollow sections of non-alloy and fine grain steels, EN 10219. It is batch tested for your assurance and perfect for projects where you require guaranteed minimum strength and mechanical properties.

Tolerances

Dimensional tolerances are to EN 10219.

Weldability

Forcon® 355 tubes fulfil the conditions for welding cold-formed zones and adjacent material described in EN 1993 / Eurocode 3.

Galvanising suitability

The steel composition complies with category A or B according to ISO 14713-2:2020, perfectly suitable for hot dip zinc coating.

CE Marking

Forcon® 355 is manufactured and CE marked according to EN 10219 grade S355J2H.

Forcon® TT

Our structural hollow sections are also available as Forcon® TT. For these Tailored Tubes you can choose from several premium options - for example tighter tolerances, a certain position of the weld seam or a scarfed internal weld bead, a superior surface finish or special bundling. We are ready to help you to tailor Forcon® TT to your needs. Our customised Forcon® TT is the key to boosting efficiency in manufacturing.

Technical Support

We want you to get the best from Forcon® hollow sections. Our sales team is always happy to answer your questions on steel selection or available options. And our engineers are available to assist you with the application of Forcon® for efficient and lightweight design.

Inspection & Testing

Forcon® 355 hollow sections are subject to specific inspection and testing and are supplied with an inspection certificate type 3.1 to EN 10204.

Availability

Forcon® 355 is available across the size range indicated in the below tables. Minimum order quantities may apply and other sizes or thicknesses may be available – please contact your Tata Steel Nederland Tubes representative for details.

Standard lengths of Forcon® 355 are 6m, 12m or 15m, depending on the size and production mill. Special mill lengths from 4.5m up to 20m can be arranged upon request.

Sustainability

Steel is strong, durable, versatile, re-usable and most importantly, it is endlessly 100% recyclable without loss of quality. We take sustainability very seriously and as well as being a member of Responsible Steel™, we have BES 6001 certification and Environmental Product Declarations (EPD's) for our Forcon® hollow sections. To reduce carbon emissions, you can choose from different Zeremis® solutions.

Mechanical properties

Grade	Min. yield strength	Tensile strength		Min. Elongation	Min. impact KV2 at test temperature of -20°C
	R_{eH} (MPa)	R_m (MPa)	T < 3 mm 3 mm ≤ T ≤ 40 mm	A (%)	J
S355J2H	355	510-680	470-630	20	27

For section sizes D/T < 15 (circular) and (B+H)/2T < 12.5 (square and rectangular) the minimum elongation is reduced by 2.

For thicknesses < 3 mm, a gauge length of $L_0 = 80$ mm shall be used provided a test piece width of 20 mm can be achieved, otherwise a gauge length of 50 mm shall be used with a test piece width of 12.5 mm.

Chemical composition

	C	Si	Mn	P	S	Al _{tot}	CEV
	max.	max.	max.	max.	max.	min.	max.
S355J2H	0.22	0.55	1.60	0.030	0.030	0.020	0.45

All values are in weight%

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Circular hollow sections (CHS)

mm	2.0	2.4	3.2	3.6	4.0	5.0	6.0	6.3	8.0	10.0
31.8										
33.7										
38.0										
41.5										
42.4										
44.5										
48.3										
51.0										
57.0										
60.3										
63.5										
70.0										
76.1										
82.5										
88.9										
101.6										
108.0										
114.3										
121.0										
127.0										
139.7										
159.0										
168.3										
193.7										
219.1										
244.5										
273.0										
323.9										

These dimensions are available on request.

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Rectangular hollow sections (RHS)

mm	2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	10.0
30/20									
40/20									
40/30									
50/20									
50/25									
50/30									
50/40									
60/20									
60/30									
60/40									
60/50									
70/40									
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140/80									
150/100									
160/80									
160/90									
180/80									
180/100									
200/80									
200/100									
200/120									
200/150									
220/120									
250/100									
250/150									
300/100									
300/200									

These dimensions are available on request.

These dimensions are regularly rolled.

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Square hollow sections (SHS)

mm	2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	10.0
25/25									
28/28									
30/30									
35/35									
40/40									
45/45									
50/50									
60/60									
70/70									
80/80									
90/90									
100/100									
120/120									
140/140									
150/150									
160/160									
180/180									
200/200									
250/250									

These dimensions are available on request.

These dimensions are regularly rolled.

www.tatasteelnederland.com/tubes

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