

Technical data sheet – S355J2G4 – S355J2+N (1.0577)

- Unalloyed mild steel
- With special cold formability: 1.0579; S355J2G4C
- Good weldability

Applications: Containers, cold-formed profiles, booms for excavators and cranes

Chemical composition (acc. DIN EN 10025-2 (10/2019))

mass fraction in %				
S355J2+N	C [%]	Si [%]	Mn [%]	Cr [%]
	≤ 0,20	≤ 0,55	≤ 1,60	≤ 0,29
	P [%] max.	S [%] max.	Mo [%]	Cu [%]
	0,025	0,025	≤ 0,11	≤ 0,55
	Ni [%]			
	≤ 0,42			

ISO 9001: 2015 TÜV NORD certified.

Mechanical properties

(acc DIN 10025-2 (10/2099) Hot-rolled products made from structural steels. Technical delivery conditions for unalloyed structural steels.)

Dimensions	Yield strength (Re)	Temperature
<= 16 mm	>= 355 MPa	~ 20 ° C
16 - 40 mm	>= 345 MPa	~ 20 ° C
40 - 63 mm	>= 335 MPa	~ 20 ° C
63 - 80 mm	>= 325 MPa	~ 20 ° C
80 - 100 mm	>= 315 MPa	~ 20 ° C
100 - 150 mm	>= 295 MPa	~ 20 ° C
150 - 200 mm	>= 285 MPa	~ 20 ° C
200 - 250 mm	>= 275 MPa	~ 20 ° C
250 - 400 mm	>= 265 MPa	~ 20 ° C

Dimensions	Tensile strength (Rm)	Temperature
<= 3 mm	510 - 680 MPa	~ 20 ° C
3 - 100 mm	470 - 630 MPa	~ 20 ° C
100 - 150 mm	450 - 600 MPa	~ 20 ° C
150 - 250 mm	450 - 600 MPa	~ 20 ° C
250 - 400 mm	450 - 600 MP	~ 20 ° C

Elongation (A 5,65)

Dimensions	Value	Sample location	Temperature
3 - 40 mm	>= 22 %	longitudinal	~ 20 ° C
3 - 40 mm	>= 20 %	transversal	~ 20 ° C
40 - 63 mm	>= 21 %	longitudinal	~ 20 ° C
40 - 63 mm	>= 19 %	transversal	~ 20 ° C
63 - 100 mm	>= 20 %	longitudinal	~ 20 ° C
63 - 100 mm	>= 18 %	transversal	~ 20 ° C
100 - 150 mm	>= 18 %	longitudinal	~ 20 ° C
100 - 150 mm	>= 18 %	transversal	~ 20 ° C
150 - 250 mm	>= 17 %	longitudinal	~ 20 ° C
150 - 250 mm	>= 17 %	transversal	~ 20 ° C
250 - 400 mm	>= 17 %	longitudinal	~ 20 ° C
250 - 400 mm	>= 17 %	transversal	~ 20 ° C

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Elongation (A 80 mm)

Dimension	Value	Sample location	Temperature
<= 1 mm	>= 14 %	longitudinal	~ 20 ° C
<= 1 mm	>= 12 %	transversal	~ 20 ° C
1 - 1,5 mm	>= 15 %	longitudinal	~ 20 ° C
1 - 1,5 mm	>= 13 %	transversal	~ 20 ° C
1,5 - 2 mm	>= 16 %	longitudinal	~ 20 ° C
1,5 - 2 mm	>= 14 %	transversal	~ 20 ° C
2 - 2,5 mm	>= 17 %	longitudinal	~ 20 ° C
2 - 2,5 mm	>= 15 %	transversal	~ 20 ° C
2,5 - 3 mm	>= 18 %	longitudinal	~ 20 ° C
2,5 - 3 mm	>= 16 %	transversal	~ 20 ° C

ISO-V/Charpy-V

Dimension	Value	Temperature
<= 150 mm	>= 27 J	~ 20 ° C
150 - 250 mm	>= 27 J	~ 20 ° C

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