

ABRAZO 400 Data Sheet

ABRAZO 400 is a roller quenched steel, combining high strength and toughness with good weldability.

Chemical composition limits (maximum and typical ladle analysis)

thickness (mm)		C (%)	Si (%)	Mn (%)	S (%)	P (%)	Cr (%)	Mo (%)	Nb (%)	Ti (%)	V (%)	Ni (%)	Cu (%)	B (%)	Al (%)
8 ≤ t ≤ 19	max.	0.20	0.50	1.60	0.010	0.025	0.25	0.20	0.06	0.04	0.08	0.70	0.20	0.004	0.06
	typical	0.14	0.40	1.40	0.003	0.015	-	-	0.03	0.02	0.06	-	-	0.002	0.03
19 < t ≤ 40	max.	0.20	0.50	1.60	0.010	0.025	0.25	0.20	0.06	0.04	0.08	0.70	0.20	0.004	0.06
	typical	0.17	0.40	1.40	0.003	0.015	0.15	0.15	0.03	0.02	-	0.25	0.15	0.002	0.03
40 < t ≤ 80	max.	0.20	0.50	1.60	0.010	0.025	0.65	0.60	0.06	-	0.08	0.20	0.20	0.004	0.085
	typical	0.16	0.35	1.25	0.002	0.015	0.25	0.50	0.03	-	0.03	-	-	0.002	0.070

ABRAZO 400 is offered with the following CEV:

thickness (mm)	maximum ladle CEV* (%)
8 ≤ t ≤ 19	0.43
19 < t ≤ 40	0.52
40 < t ≤ 80	0.57

*Other maximum CEV available by agreement.

Mechanical properties

ABRAZO 400 is routinely subject to hardness testing only. Any additional testing is by special arrangement.

thickness (mm)	minimum hardness (H _{BN})	typical hardness (H _{BN})	minimum yield strength (MPa)	tensile strength (MPa)	minimum elongation (%)
8 ≤ t ≤ 19	360	400	1050	1200	14
19 < t ≤ 40	360	400	1100	1250	14
40 < t ≤ 80	360	400	1000	1150	14

Testing in accordance with EN10002, EN10045 and BS EN ISO 6506.

Dimensions

ABRAZO 400 is available in thicknesses 8mm to 80mm. Width and length availability is given in table 4 of the Corus Construction & Industrial brochure Plate products range of sizes.

Tolerances

The manufacturing tolerances for ABRAZO 400 are in compliance with EN10029:1991 with the exception of flatness. Plates are supplied with a maximum tolerance of 4.5 mm over 1000 mm.

Surface quality of ABRAZO 400 is compliant with EN10163:2004 class A subclass 1.

Other tolerances are available by agreement.

Fabrication and Welding

ABRAZO 400 can be processed using standard workshop techniques when basic precautions are taken. Guidance for this is available in the ABRAZO Fabrication Guide reference ABRAZOFabGuide/07/2006.

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