

ABRAZO[®] 400 Data Sheet

ABRAZO[®] 400 is a roller quenched steel, combining high strength, toughness, good weldability, and excellent wear resistance.

Chemical composition

Thickness* (mm)		C (%)	Si (%)	Mn (%)	S (%)	P (%)	Cr (%)	Mo (%)	Nb (%)	V (%)	Ni (%)	Cu (%)	B (%)
8 ≤ t ≤ 80	max.	0.20	0.50	1.60	0.010	0.025	1.00	0.70	0.06	0.10	1.50	0.40	0.004

* Other gauges available by agreement.

ABRAZO[®] 400 is offered with the following CEV:

Thickness (mm)	Maximum ladle CEV* (%)
8 ≤ t ≤ 19	0.43
19 < t ≤ 40	0.53
40 < t ≤ 80	0.59

* 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})	Typical yield strength (MPa)	Typical tensile strength (MPa)	Typical elongation on 50mm gauge length (%)
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 BS EN ISO 6892, BS EN 10045 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 Plate products range of sizes brochure.

Tolerances

The manufacturing tolerances for ABRAZO® 400 are in compliance with EN10029:1991.

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

Other tolerances are available by agreement.

Supply Condition

Quenched or Quenched and Tempered at the discretion of the supplier.

Fabrication and Welding

ABRAZO® 400 can be readily processed following the guidance available in the ABRAZO® Fabrication guide.

Not suitable for any hot forming operations and should not be heated above 200°C.

Further Information

For any queries regarding product application, metallurgy or mechanical properties please contact our Technical Advisory Service +44 (0) 1724 402106 or email: plates.technical@corusgroup.com

All other enquiries may be directed to your account team, or contact us using the details below.

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ABRAZO[®] 450 Data Sheet

ABRAZO[®] 450 is a roller quenched steel, combining excellent wear resistance, high strength and durability.

Chemical composition

Thickness* (mm)	C (%)	Si (%)	Mn (%)	S (%)	P (%)	Cr (%)	Mo (%)	Ni (%)	B (%)
12 ≤ t ≤ 50	max. 0.25	0.50	1.50	0.010	0.025	1.50	0.70	1.50	0.005

* Other gauges available by agreement.

ABRAZO[®] 450 is offered with the following CEV:

Thickness (mm)	Maximum ladle CEV* (%)
12 ≤ t ≤ 50	0.66

* Other maximum CEV available by agreement.

Mechanical properties

ABRAZO[®] 450 is routinely subject to hardness testing only. Any additional testing is by special arrangement.

Thickness (mm)	Minimum hardness (H _{BN})	Typical hardness (H _{BN})
12 ≤ t ≤ 50	415	450

Typical mechanical properties for 25mm thick plate.

Yield strength (MPa)	Tensile strength (MPa)	Proportional elongation (%)	Average impact energy*
1200	1450	10	27 J@ -40°C

Testing in accordance with BS EN ISO 6892, BS EN 10045 and BS EN ISO 6506.

* Longitudinal charpy V notch, 2mm sub-surface.

Dimensions

ABRAZO® 450 is available in thicknesses 12mm to 50mm. Width and length availability is given in table 4 of the Plate products range of sizes brochure.

Tolerances

The manufacturing tolerances for ABRAZO® 450 are in compliance with EN10029:1991.

Surface quality of ABRAZO® 450 is compliant with EN10163:2004 class A subclass 1.

Other tolerances are available by agreement.

Supply Condition

Quenched or Quenched and Tempered at the discretion of the supplier.

Not suitable for any hot forming operations and should not be heated above 200°C.

Further Information

For any queries regarding product application, metallurgy or mechanical properties please contact our Technical Advisory Service +44 (0) 1724 402106 or email: plates.technical@corusgroup.com

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ABRAZO[®] 500 Data Sheet

ABRAZO[®] 500 is a roller quenched steel, combining outstanding wear resistance, high strength and durability.

Chemical composition

Thickness* (mm)		C (%)	Si (%)	Mn (%)	S (%)	P (%)	Cr (%)	Mo (%)	Ni (%)	B (%)
12 ≤ t ≤ 40	max.	0.30	0.50	1.50	0.010	0.025	1.50	0.70	1.50	0.005

* Other gauges available by agreement.

ABRAZO[®] 500 is offered with the following CEV:

Thickness (mm)	Typical ladle CEV* (%)
12 ≤ t ≤ 40	0.62

* Maximum ladle CEV 0.68%. Other maximum CEV available by agreement.

Mechanical properties

ABRAZO[®] 500 is routinely subject to hardness testing only. Any additional testing is by special arrangement.

Thickness (mm)	Minimum hardness (H _{BN})	Typical hardness (H _{BN})
12 ≤ t ≤ 40	460	500

Typical mechanical properties for 25mm thick plate.

Yield strength (MPa)	Tensile strength (MPa)	Proportional elongation (%)	Average impact energy*
1400	1550	10	27 J@ -30°C

Testing in accordance with BS EN ISO 6892, BS EN 10045 and BS EN ISO 6506.

* Longitudinal charpy V notch, 2mm sub-surface.

Dimensions

ABRAZO® 500 is available in thicknesses 12mm to 40mm. Width and length availability is given in table 4 of the Plate products range of sizes brochure.

Tolerances

The manufacturing tolerances for ABRAZO® 500 are in compliance with EN10029:1991.

Surface quality of ABRAZO® 500 is compliant with EN10163:2004 class A subclass 1.

Other tolerances are available by agreement.

Supply Condition

Quenched or Quenched and Tempered at the discretion of the supplier.

Not suitable for any hot forming operations and should not be heated above 200°C.

Further Information

For any queries regarding product application, metallurgy or mechanical properties please contact our Technical Advisory Service +44 (0) 1724 402106 or email: plates.technical@corusgroup.com

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