



HARDOX® 400 ROUND BARS

The shape of excellence

Hardox® 400 round bars are the new generation of wear resistant bars with a special combination of high hardness, toughness and weldability. Hardox® round bars are heat treated with state of the art quenching and tempering methods, and ready to use. They come in a variety of dimensions both in as-rolled or bright surfaces, with possibilities of reaching tight tolerances according to customers' demand.

MATERIAL PROPERTIES	
Hardox® 400	Properties*
Hardness (HBW)	400
Toughness Charpy V (J)	65 (at -40° C/-40° F)
Yield Strength (MPa)	1000
Tensile Strength (MPa)	1350
Max CET	0.37
Elongation	13

*The data in this table are typical values

THE SECRET BEHIND ITS PERFORMANCE

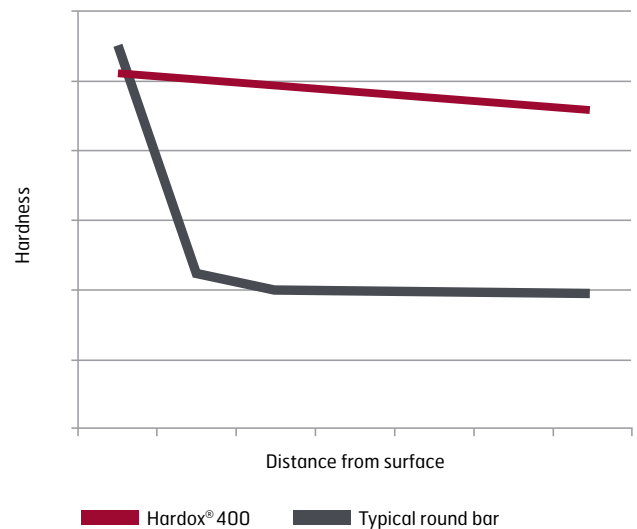
The uniqueness of Hardox® round bars lies in combining the mechanical properties – through-thickness hardness, as shown in the chart, and toughness – in a way that generates the highest wear resistance possible. These features make Hardox® round bars hard to compete with when it comes to wear situations and welding requirements, such as in material handling applications.

Careful selection of alloying elements and a very clean steel makes Hardox® a uniquely stable product. Alloying the steel is designed according to the dimension and steel grade to ensure a consistent behavior for the entire product range.

State-of-the-art heat treatment and a carefully designed chemistry allow us to reach almost the same hardness level (min 90%) in the core of the bar as on the surface, while the toughness is maintained at the high promised level.

Hardox® round bars have an outstanding combination of hardness, toughness and weldability. Hardness optimizes the service life of your equipment. Toughness makes it work reliably even in cold or freezing conditions. Weldability is key to reaching high productivity in the workshop and high-quality welds.

Through-thickness hardness sets Hardox® 400 round bars apart from other materials

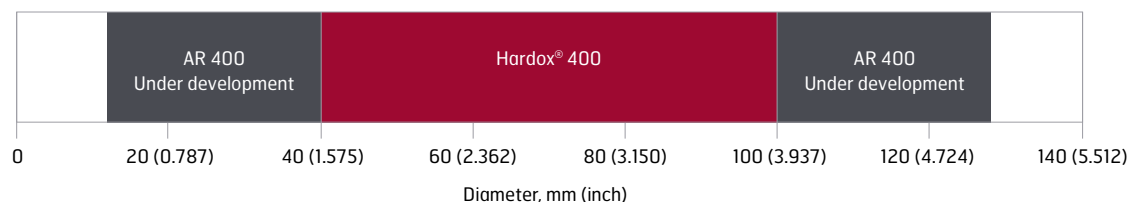


Hardox® round bars are unique products in the market

DIMENSIONS

Hardox® 400 round bars are available with a diameter that ranges from 40 to 100 mm (1.575–3.937"). For other diameters, the round bars are available as development products.

Hardox® 400/ AR 400



TOLERANCES

Geometrical parameter	Description	EN Standard
Diameter (Rolled bars)	OD≤75 mm (2.953")	EN 10060 Precision
	OD>75 mm (2.953")	SSAB specification
Diameter (Bright bar)	Possibilities to reach h11,h9,h6, f8	EN10278
Length	Fixed L = 5000 mm with -0/+200 mm (196.850" with -0/ 7.874")	EN 10060
Ovality	< 75% of the diameter tolerance range	EN 10060
Straightness	2 mm/m (0.079"/78")	EN 10060



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