



HARDOX® ROUND BARS

Same properties in a new shape

TOUGHNESS, BENDABILITY AND WELDABILITY

Hardox® round bars feature the same guaranteed properties as Hardox® wear plate. The Hardox® round bars come in diameters between 40 and 100 mm and lengths up to 5000 mm. Also available are development bars from 20 to 39.9 mm. Hardox® round bars are delivered quenched or quenched and tempered to high tensile strength and hardness levels.

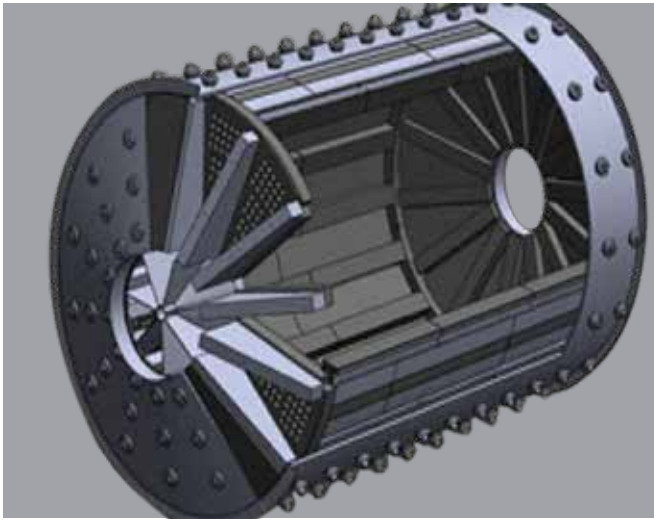
Combined with excellent toughness, Hardox® round bars represent entirely new possibilities for stronger and lighter product design. One feature in particular is the through-thickness hardness, with a minimum of 90% of the surface hardness remaining at the core of the bar.

Hardox® round bars also help optimize workshop procedures such as machining, welding and bending. Another benefit of Hardox® round bars is that they are ready to use directly. No additional quenching is needed because these bars are delivered heat treated.

FEATURES IN SHORT

- Hardness 400 or 500 ±30 HBW
- Through-hardened regardless of bar dimensions
- High strength (>1000 MPa)
- Exceptionally good combination of high toughness and hardness
- High wear resistance
- Good weldability

IMPROVING GRINDING PERFORMANCE IN ROD MILLS



A rod mill is an application that requires significant wear resistance, as well as high crack resistance and toughness. In a rod mill bars are located inside a drum together with the mineral material, and the rotation crushes the minerals into smaller sizes.

To improve service life before the rods have to be replaced, SSAB provides an AR 500 development product with a hardness of approximately 500 HB in combination with a high toughness to prevent cracking.

Compared to a 260 HB material – which is common in rod mills – AR 500 is estimated to give a service life that is 3.6 times longer.*

Steel grade	Estimated hardness (HB)	Relative service life*
Reference grade	260	1.0
SSAB development AR 500 round bar	500	3.6

Results indicate that SSAB's developmental AR 500 round bar brings more value to the customer for a rod mill application.

*Estimated values from SSAB's WearCalc wear simulation software.

