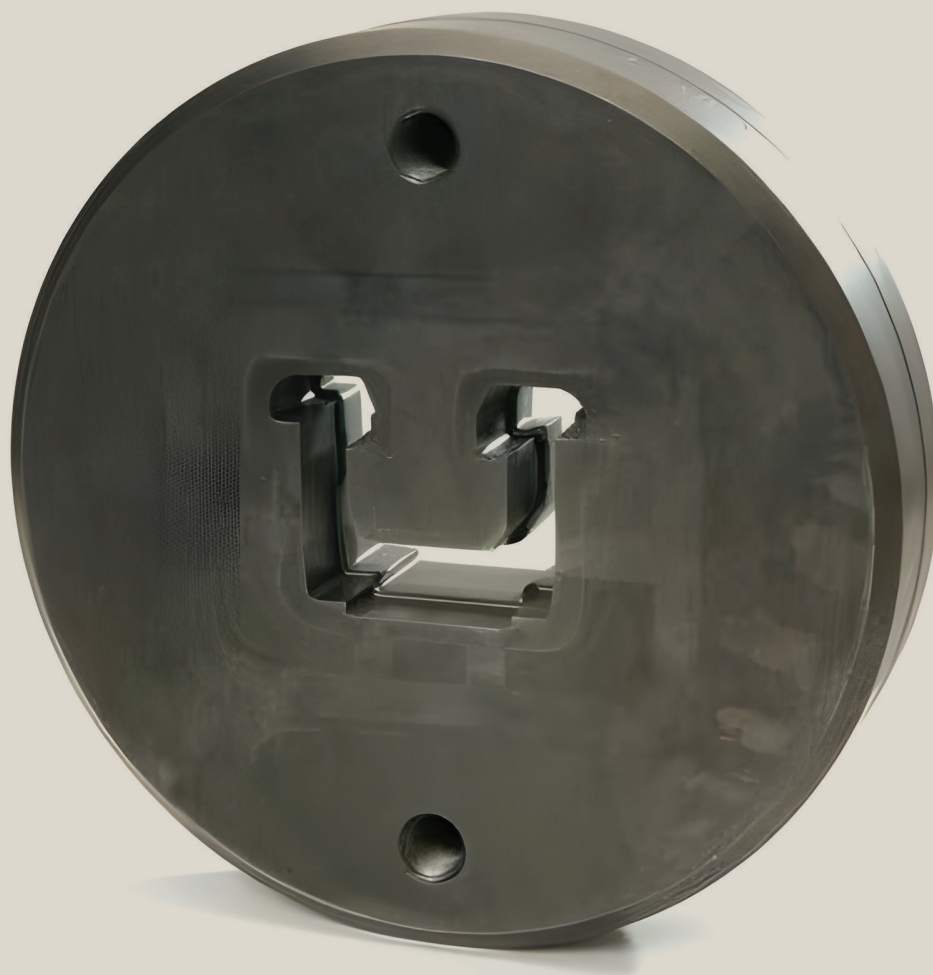


Consistent performance
and high heat resistance make
Toolox[®] 46 Round Bars ideal
for demanding hot work
applications



Outperform every time

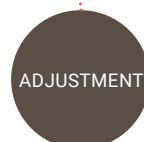
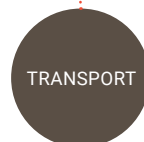
With consistency, precision, and endurance at its core, Toolox® 46 Round Bar speeds up production and ensures reliable results—so you can focus on achieving more, worry-free.

Where can Toolox® 46 Round Bars save you time?

As all Toolox® grades, Toolox® 46 Round Bar is delivered in a prehardened state with carefully controlled properties. Its low-carbon, low-carbide composition ensures easy machining with normal carbide tools.

Toolox® provides stability, allowing you to achieve precise dimensions in a single step, eliminating the need for transport to additional quenching, tempering, or final adjustment, and saving you days—potentially weeks—in production time.

With Toolox® 46, you get a final product that maximizes performance, productivity, and service life, faster than standard ESR tool steel.



A cost-effective alternative to ESR steels

Toolox® 46 Round Bar has proven to perform on par with or even surpass ESR hot work tool steels in forging and extrusion die applications. With its superior performance, Toolox® 46 offers a more cost-effective solution without compromising quality, reliability, or durability.

Extrusion die test

MATERIAL	TOTAL AMOUNT OF EXTRUDED ALUMINIUM (KG)*	RELATIVE COST**
Toolox® 46 Round Bar	14516	1
High-end ESR hot work tool steel	14420	≈ 2

*Extrusion dies nitrided four times during the extrusion run.

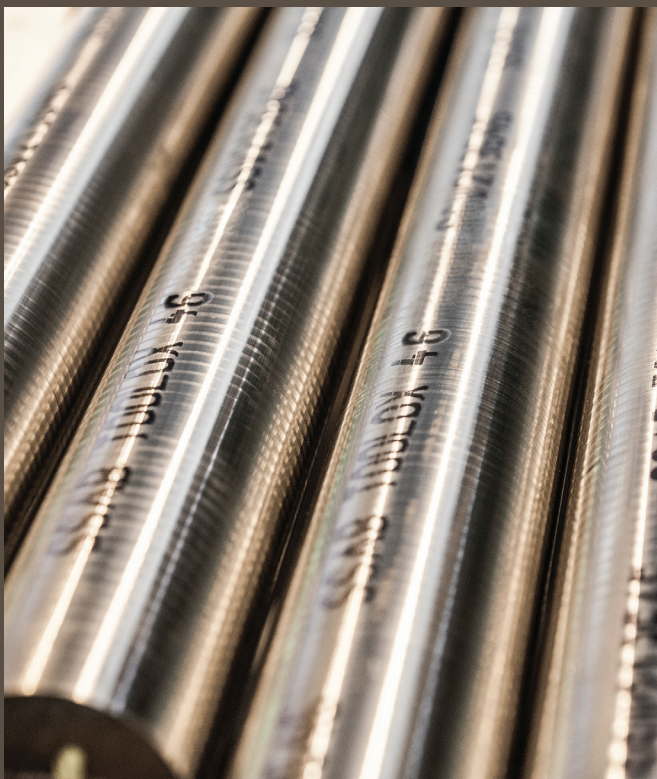
**Relative die cost is based on available data for common ESR steels.

Increased molybdenum content

Designed for high-temperature performance, Toolox® 46 can operate continuously at its temperature limit of 600°C, maintaining its original hardness even after cooling to room temperature.

Ideal for forging and extrusion dies or machine parts exposed to heat.

600°C



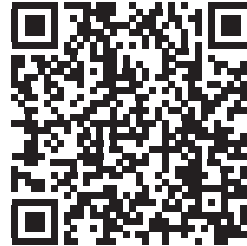
Ready for surface treatment

The hardness, toughness and uniform microstructure makes Toolox® 46 Round Bar a perfect substrate for surface treatment. It is delivered prehardened to a hardness of 46 HRC all through the material. If necessary, the surface hardness can be increased by nitriding, PVD or other surface treatments.

Toolox[®] 46 Round Bar in brief

PROPERTIES	DATA
Diameter	151.0-353.0 mm
Hardness	430-490 HBW (EN ISO 6506-1)
Impact energy	11 J at 20 °C (EN 10083)
Tolerances	EN 10060

Product offer and datasheet



All Toolox[®] steel come with measured and guaranteed properties



Hardness and toughness



Machinability



Surface condition



Thickness

SSAB is a Nordic and US-based steel company that builds a stronger, lighter and more sustainable world through value added steel products and services. Working with our partners, SSAB has developed SSAB Fossil-free[™] steel and plans to reinvent the value chain from the mine to the end customer, largely eliminating carbon dioxide emissions from our own operations. SSAB Zero[™], a largely carbon emission-free steel based on recycled steel, further strengthens SSAB's leadership position and our comprehensive, sustainable offering independent of the raw material. SSAB has employees in over 50 countries and production facilities in Sweden, Finland and the US. SSAB is listed on Nasdaq Stockholm and has a secondary listing on Nasdaq Helsinki. Join us on our journey! www.ssab.com.



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