

Steel grade

Material No. / Werkstoff-Nr.	PREMIUM Toolox 44
Description	Toolox 44
BS	Toolox 44
AISI/SAE	Toolox 44
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.co.uk/alternatives/T44

Specifications



€co-Präz® [€co]
L: 500 mm



Precision round steel
with machining allowance [PRS/BA]
peeled / rough-turned
L: 500 mm
L: 1,000 mm

Chemical composition BS Toolox 44 (reference value %)

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.32 – 0.32	0.6 – 1.1	0.8 – 0.8	0 – 0.01	0 – 0.003	1.35 – 1.35	0.8 – 0.8	0 – 1.0	0.14 – 0.14

Physical properties

Hardness (delivery condition)	max. 418 HB, tempered			
Tensile strength R_m (as received condition)	approx. 1,420 N/mm ²			
Working hardness	max. 45 HRC			
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	20 - 200°C			
	13.5			
Thermal conductivity $W/(m \cdot K)$	20°C	200°C	400°C	600°C
	28.0	32.0	29.0	21.0

Technical properties

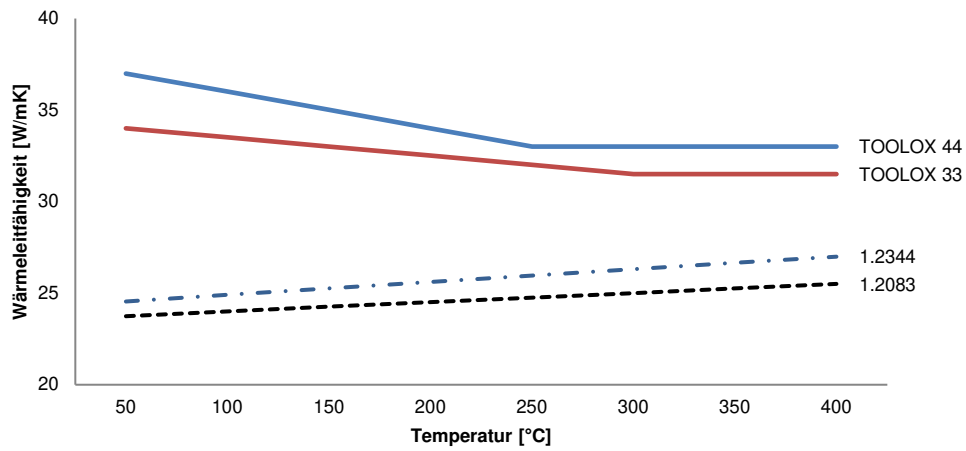
Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapour Deposition).

Applications

Mechanical engineering, machine parts, guide rails, base plates, assembling parts, press brake tools, plate forming tools, wear parts, plastic moulds, moulding frames, forming tools, rubber moulds, die casting moulds.



Thermal conductivity



Surface Treatment - hardness / charpy impact energy

