

Steel grade

Material No.	PREMIUM Toolox 44
AISI	Toolox 44
Search for alternatives in the ABRAMS STEEL GUIDE	www.abrams-steelguide.com/alternatives/T44

Shapes



**Smart Flat Stock [Smart]
Standardized Precision Blanks**
L: 12"
L: 24"



**Smart Flat Stock Metric [Smart]
Standardized Precision Blanks Metric**
L: 300 mm
L: 600 mm

Chemical composition AISI 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. 205.9 KSI							
Working hardness	max. 45 HRC							
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	68 - 392°F							
	13.5							
Thermal conductivity $W/(m \cdot K)$	68°F		392°F		752°F		1112°F	
	28.0		32.0		29.0		21.0	

Technical properties

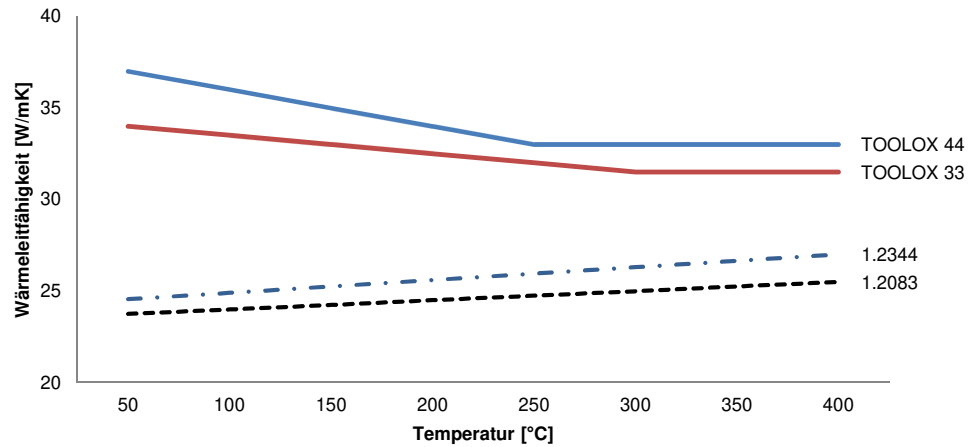
Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical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

Applications

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



Thermal conductivity



Surface Treatment - hardness / charpy impact energy

