

TOOLOX 33, 40 AND 44

ENGINEERING & TOOL STEEL

VALORI TIPICI

Toolox 33 - Propriet Meccaniche	+20°C	+200°C	+300°C	+400°C	+500°C
Durezza (HBW)	300				
Durezza (HRC)	~29				
Limite di Snervamento $R_{p0.2}$ (MPa)	850	690	680	590	560
Limite di Rottura R_m (MPa)	980	900			
Allungamento, A5, (%)	16	12			
Resilienza, Charpy-V (J)	100	170	180	180	

Toolox 40 - Propriet Meccaniche	+20°C	+200°C	+300°C	+400°C	+500°C
Durezza (HBW)	400				
Durezza (HRC)	~40				
Limite di Snervamento $R_{p0.2}$ (MPa)	1150	1010	990	900	780
Limite di Rottura R_m (MPa)	1260	1170	1160	1060	900
Allungamento, A5, (%)	14	14	14	15	16
Resilienza, Charpy-V (J)	38				

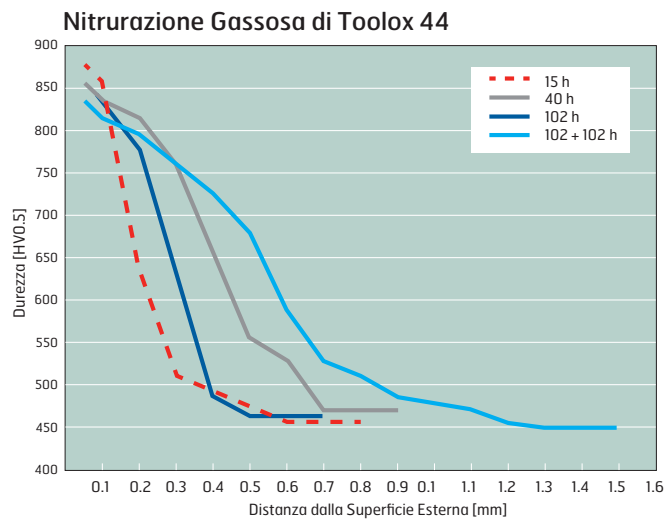
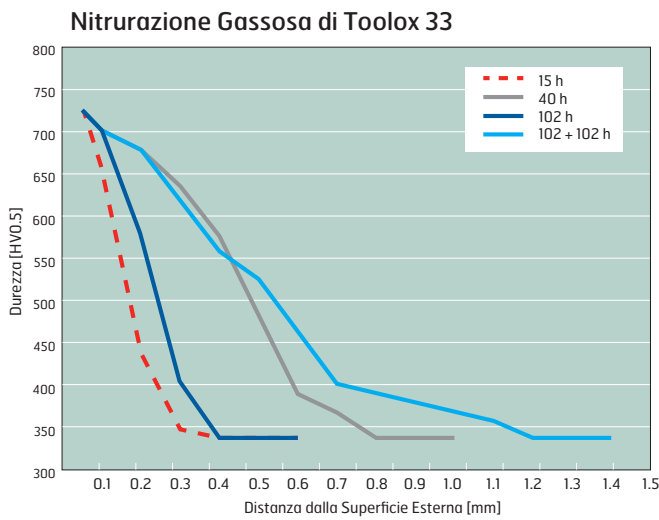
Toolox 44 - Propriet Meccaniche	+20°C	+200°C	+300°C	+400°C	+500°C
Durezza (HBW)	450				
Durezza (HRC)	~45				
Limite di Snervamento $R_{p0.2}$ (MPa)	1300	1150	1120	1060	930
Limite di Rottura R_m (MPa)	1450	1380			
Allungamento, A5, (%)	13	10			
Resilienza, Charpy-V (J)	30	60	80	80	

Propriet Fisiche	+20°C		+200°C		+400°C	
	Toolox 33	Toolox 44	Toolox 33	Toolox 44	Toolox 33	Toolox 44
Conducibilit Termica (W/m*K)	35	34	35	32	30	31
Coefficiente di Dilatazione Termica ($10^{-6}/K$)	13.1	13.5	13.1	13.5	13.1	13.5

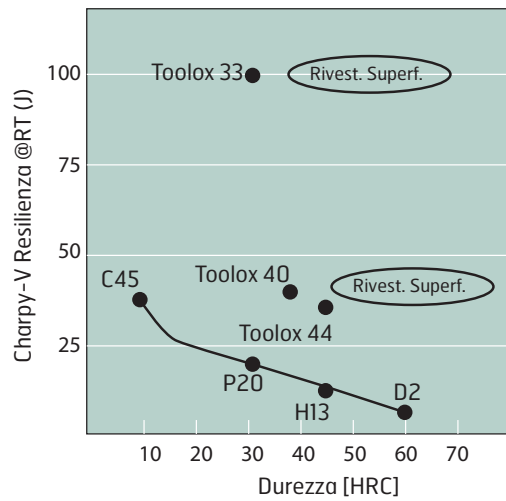
Inclusioni	Toolox 33	Toolox 40	Toolox 44
Dimensione delle Inclusioni (diam. equiv.)	6 micron	6 micron	6 micron
Area di frazione	0.015%	0.015%	0.015%
Rapporto lungh.-largh.	1.2	1.2	1.2

Composizione Chimica	Toolox 33	Toolox 40	Toolox 44
C	0.22-0.24%	0.28%	0.32%
Si	0.6-1.1%	1.1%	0.6-1.1%
Mn	0.8%	0.6%	0.8%
P	Max 0.010%	Max 0.010%	Max 0.010%
S	Max 0.002%	Max 0.002%	Max 0.002%
Cr	1.0-1.2%	1.22%	1.35%
Mo	0.30%	0.5%	0.80%
V	0.10-0.11%	0.12%	0.14%
Ni	Max 1.0%	Max 1.0%	Max 1.0%
CEIIV	0.62-0.71	0.77-0.81	0.94-0.98
CET	0.40-0.44	0.45-0.50	0.55-0.57

TECNOLOGIA SUPERFICIALE



DURO E RESILIENTE



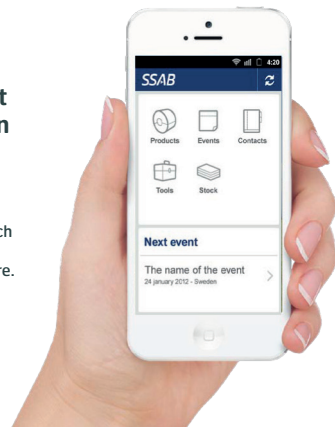
Per ulteriori informazioni inerenti ai prodotti Toolox, Vi preghiamo di contattare i responsabili di vendita locali.

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