

## Technical data sheet – X153CrMoV12 (1.2379)

### - Alloyed tool steel

**Applications:** Cold work tools, thread rolling jaws, shear knives

**Chemical composition** (acc. DIN EN ISO 4957 (11/2018))

mass fraction in %				
<b>X40CrMoV5-1</b>	<b>C [%]</b>	<b>Si [%]</b>	<b>Mn [%]</b>	<b>Cr [%]</b>
	1,45 – 1,60	0,10 – 0,60	0,20 – 0,60	11,00 – 13,00
	<b>P [%] max.</b>	<b>S [%] max.</b>	<b>Mo [%]</b>	<b>Cu [%]</b>
	0,030	0,030	0,70 – 1,00	-
	<b>Ni [%]</b>	<b>V [%]</b>		
	-	0,70 – 1,00		

ISO 9001: 2015 TÜV NORD certified.

## Heat treatment

(acc. DIN EN ISO 4957 (11/2018))

Hardening	1.010 -1.030 °C	Air
Tempering	170 - 190 °C	

## Mechanical properties

(acc. DIN EN ISO 4957 (11/2018))

annealed		<= 255 HBW
hardened		~ 64,0 HRC
tempered at	~ 50 ° C	~ 63,9 HRC
tempered at	~ 100 ° C	~ 63,5 HRC
tempered at	~ 150 ° C	~ 62,9 HRC
tempered at	~ 200 ° C	~ 62,0 HRC
tempered at	~ 250 ° C	~ 61,0 HRC
tempered at	~ 300 ° C	~ 60,0 HRC
tempered at	~ 350 ° C	~ 59,0 HRC
tempered at	~ 400 ° C	~ 59,0 HRC
tempered at	~ 450 ° C	~ 59,9 HRC
tempered at	~ 500 ° C	~ 59,9 HRC
tempered at	~ 550 ° C	~ 57,0 HRC
tempered at	~ 600 ° C	~ 48,0 HRC