

ES 265 W

Name:
X 38 CrMoV 5-3

Material No.:
1.2367

Typical analysis in %:

C	Si	Mn	Cr	Mo	V
0.38	0.4	0.5	5.0	3.0	0.6

As-supplied condition:
Soft-annealed to max. 229 HB
(770 N/mm²)

Characteristics:
CrMoV alloyed hot work steel with excellent high temperature strength and good high temperature toughness

General fields of application:
Extrusion tools, die inserts, injection moulds, mandrels

Special note:
Also supplied as EST and ESR grades for the highest requirements.

Heat treatment data:

	Temperature	Duration	Cooling
Soft annealing	820 - 840 °C	4 - 6 h	furnace
Stress-relief annealing	600 - 650 °C	min. 4 h	furnace
Hardening	1030 - 1060 °C	Group II	oil, air, WB 500-550°C
Tempering	500 - 700 °C 3 x, see tempering curve	min. 2 h depending on cross section	still air

Physical characteristics:

Coefficient of thermal expansion: between 20 °C and:

10 ⁻⁶ x m	100	200	300	400	500	600	700 °C
m x K	11.9	12.5	12.6	12.8	13.1	13.3	13.5

Thermal conductivity:

W	20	350	700 °C
m x K	36.4	32.2	27.5

Normal working hardness: 35 - 52 HRC

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Continuous time-temperature-transformation diagram Tempering curve

