SIMOLD 2085

TOOL STEEL

SIMOLD 2085 is a tool steel, characterised by good micro cleanliness, excellent polishability, good machinability, good temperature resistance, good dimensional stability and good wear resistance.

APPLICATIONS

- All kinds of cutting tools – dies and die-blocks in the plastic industry, such as PVC, knives, shears, surgical instruments
- Measuring gauges

SPECIFICATIONS

SIMOLD 2085 is designated as DIN X33CrS16 (Mat. No. 1.2085) and conforms to the following standards:

- EN 10029
- EN 10160 *
- SEP 1920
- EN 10163
- EN 10204
- DIN 50602 or ASTM E45 or ISO 4967 *
- ASTM E112 *

* Tested upon request.

CHEMICAL COMPOSITION – Typical values [mas.%]

SIMOLD 2085 is a martensitic steel alloyed with chromium, manganese and molybdenum with an extremely low sulphur and phosphorus content.

	C	Si	Mn	P	S	Cr	Ni	Mo
Min.	0.29	0.35	1.30	–	0.05	15.0	0.55	–
Max.	0.32	0.40	1.40	0.03	0.10	16.0	0.70	0.08

PHYSICAL PROPERTIES

Density at 20 °C: 7650 kg/m^3
Modulus of elasticity: 212 MPa

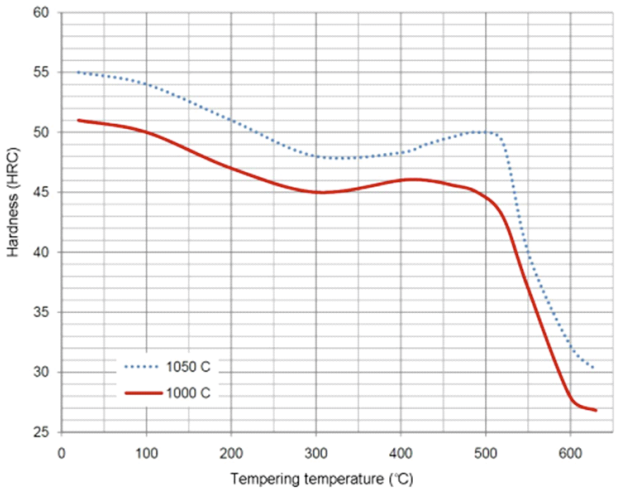
MECHANICAL PROPERTIES

Quenched & tempered QT: 285–325 HB

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44,
4270 Jesenice,
SLOVENIA, EU
+386 4 58 41 000
uprava@acroni.si
sij.acroni.si

HEAT TREATMENTS

Soft annealing	760–780 °C	Hardness HB after annealing: 230
Stress relief annealing	<500 °C	
Hardening	1000–1050 °C/air	Hardness HRC after quenching: approx. 51–55
Tempering	1h/25 mm, min. 2 h	See tempering chart



SIZE OF CRYSTAL GRAINS

Size of crystal grains 5 to 8, according to ASTM E112

CLEANLINESS OF STEEL

- DIN 50602 method K1 max. 20
- ASTM E45 method A: thin max. B2–C2–D2 and thick max. B1.5–C1.5–D1.5
- ISO 4967

DELIVERY CONDITIONS

- QT
- QT + shotblasted
- QT + shotblasted + painted
- QT + stress relieved + shotblasted

DIMENSIONS AND TOLERANCES

SIMOLD 2085	Thickness [mm]	Width [mm]	Length [mm]	Max. weight [kg]
Quarto plates	15–100	1000–2000	2000–12000	9600

- Thickness: according to EN 10029
- Flatness: according to EN 10029

INSPECTION DOCUMENTS

The type of document shall be agreed upon at the time of enquiry and order. A test certificate according to EN 10204/3.1 is issued mandatorily.

SIMOLD 2085/06-2023/EN

SIJ ACRONI d.o.o.
Cesta Borisa Kidriča 44,
4270 Jesenice, Slovenija, EU
+386 4 58 41 000
+386 4 58 41 003
uprava@acroni.si
sij.acroni.si