

CKK**COLD WORK TOOL STEEL****Nominal Chemical Analysis %**

C	1.00
Mn	.40
Cr	1.40

Heat Treatment**Annealing**

760 / 780°C for 4 hours approx.
Cool slowly in the furnace at 20°C maximum per hour.

Stress Relieving

600 / 650°C for 2 hours approx.
Cool in still air. Always stress relieve before hardening.

Hardening**Pre-Heating**

- (i) 400°C Holding time at temperature:
1 min / mm effective section approx.
(ii) 650°C Holding time at temperature:
30 sec / mm effective section approx.

Austenitizing

810/840°C Holding time at temperature:
1 min / mm effective section approx.

Quenching:-

- (i) Quench in Oil or,
(ii) Quench into Neutral Salts (Martempering) at 180 /220°C then cool slowly in still air.

Temper immediately after quenching whilst tools are still hand warm.

Corresponding Specifications

AISI	L1
BS EN ISO 4957:2000	102Cr6
Supersedes BS4659	BL1
WKSTOFF	1.2067

Colour Code: Red/Yellow

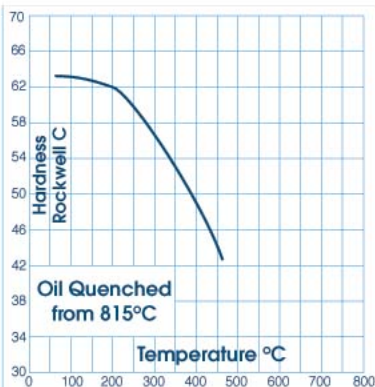
Delivery Condition
Annealed 230 BHN Max

Characteristics

L1 is a carbon/chromium type tool steel capable of high hardenability and good wear resistance. It may also be surface (Induction) hardened.

Applications

L1 is suitable for cold working tools: cold rolls, lathe centres, punches, ball bearing parts, gauges, wear strips, drawing mandrels, woodworking tools, vice jaws, heading tools and gauges.

Tempering

Consult the tempering diagram and temper according to requirements.

Temper for 1 hour / 25mm effective section for a minimum of 2 hours, then cool in still air.

For guidance, temper at:

- 150 / 200°C for maximum hardness
- 250 / 300°C for hardness with toughness
- 300 / 350°C for maximum toughness

Double tempering is recommended, cooling to room temperature between tempers.

NB. Lower hardness values will tend to result when hardening larger sections.