

XC16S**2085****PLASTIC MOULD STEEL****Nominal Chemical Analysis %**

C	.30
Mn	1.20
Cr	16.5
S	0.06

Corresponding Specifications**WKSTOFF 1.2085****Colour Code:** Purple/Yellow**Delivery Condition**

Hardened and tempered 280 - 325 BHN.

Characteristics

2085 is a pre-hardened high chromium plastic mould steel with a controlled sulphur content giving high corrosion resistance, toughness, wear resistance and very good polishability. The controlled sulphur content gives improved machinability in comparison to 2316. Best results are generally obtained in the "as delivered" condition. For other properties anneal and then observe the following heat treatment instructions.

Applications

2085 is suitable for mould bases when moulding chemically corrosive plastics, and generally for moulds where surface quality of mouldings is less critical. Also for ejector plates and clamping plates. Other uses include plastic extrusion tooling.

Heat Treatment**Annealing**

850 / 880°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) 650°C Holding time at temperature:
30 sec / mm effective section approx.
(ii) 850°C Holding time at temperature:
30 sec / mm effective section approx.

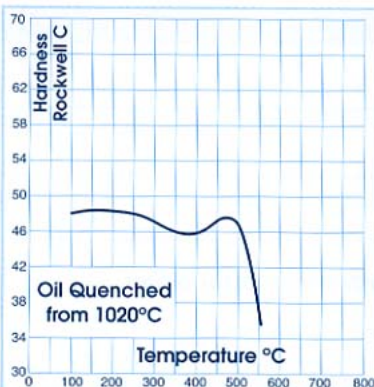
Austenitizing

1000/1050°C Holding time at temperature:
1 min / mm effective section approx.

Quenching:-

- (i) Quench in Oil.
(iii) Quench into Neutral Salts (Martempering) at 500 / 550°C then cool slowly in still air.

Temper immediately after quenching whilst tools are still hand warm.

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 / 220°C for maximum hardness

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

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