

9 2 5 7

W2

COLD WORK TOOL STEEL

Nominal Chemical  
Analysis %

C	.95
Mn	.35
Si	.25
V	.15

Heat Treatment**Annealing**

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

**Stress Relieving**

625 / 640°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**

760 / 780°C Holding time at temperature:  
1 min / mm effective section approx.

**Quenching:-**

- (i) Quench in Water  
N.B.: When using a salt bath for hardening care must be taken to avoid salts adhering to the tool surface during the quench, otherwise soft spots may occur.

Temper immediately after quenching whilst tools are still hand warm.

**Corresponding Specifications**

AISI	W2
BS EN ISO 4957:2000	105V
Supersedes BS4659	BW2
WKSTOFF	1.2833

**Colour Code:**

Yellow/Green/Blue

**Delivery Condition**

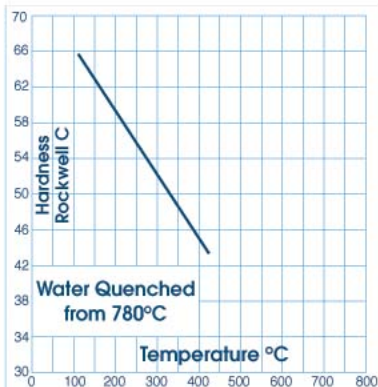
Annealed 230 BHN Max

**Characteristics**

W2 is a water hardening tool steel with increased alloy content to give better fatigue resistance.

**Applications**

W2 is suitable for many cold work applications: cold heading dies, cold punches, drawing dies, broaches, reamers, vice jaws, coining dies, gripper dies, shear blades.

**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

225 / 250°C for hardness with toughness

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