# BO1 (BS4659)

Product Datasheet

#### Tool Steel



Service. Quality. Value.

## Cost-effective & Durable

# BO1 BS4659 is a high-quality non-distorting cold work tool steel.

Including a combination of manganese, chromium and tungsten, **BO1 tool steel** offers characteristics including good surface hardness after tempering, dimensional stability in hardening, and machinability. The alloy is a popular choice for use in general engineering applications and offers a cost-effective option when compared to high carbon high chromium tool steel.

BO1 provides good durability, excellent wear resistance and will hold a cutting edge. Know as an oil hardening type tool steel, BO1 is available in round bar, flat bar and plate in the annealed condition.

#### Key Features

- Good Machinability
- Dimensional Stability
- Good Surface Hardness
- Good Durability
- Excellent Wear Resistance

### Chemical Composition (weight %)



### Applications

- Tooling
- Punches & Dies
- Die finishing moulds
- Stampings

	С	Mn	Si	W	V	Cr
Min	0.85	1.1		0.4		0.4
Max	1.0	1.35	0.4	0.6	0.25	0.6

#### **Mechanical Properties**

The mechanical properties of O1 steels are tabulated below:

Properties		Metric	
Hardness, Brinell	(soft annealed - delivery condition)	190	
Hardness, Rockwell C	(tempering temperature 300-1200°F)	34.0 - 64.0	

#### We stock BO1 (BS4659) in round bar, flat bar and plate.

UK Service Centr	es:			Quality & Testing:		
Smiths Belfast Smiths Biggleswade Smiths Birmingham Smiths Bristol Smiths Chelmsford Smiths Gateshead	0121 728 4940 0117 971 2800	Smiths Leeds Smiths Manchester Smiths Norwich Smiths Nottingham Smiths Redruth Smiths Verwood	01603 789 878	USO 9001 Quality Management Systems CERTIFIED		
Smiths Horsham	01403 261 981	Main Office	0845 527 3331	www. <b>smithmetal</b> .com	info@smithmetal.com	

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