

Tungsten Special™

High Strength, Shock Resistant Alloy Bar



(Past Protected Trade Name of Ludlow Steel – Tungsten #21)

Advantages

Elevated Shock Resistance

Enhanced Weldability

Resists the Detrimental Effects of Elevated Temperature Service

Responds to Various Thermal Treatments:

- Full Quench and Tempering
- Liquid Carburizing
- Nitriding
- Flame Hardening
- Induction Hardening

Tungsten Special should be considered as an upgrade where maintenance applications call for commercial grades, such as, 4140, 4340, 6150 and 8620. **Tungsten Special** provides greater shock resistance.

Tungsten Special does conform to certain automotive specifications used by General Motors Corporation, Ford Motor Company and Daimler Chrysler.

**Consider Tungsten Special Where
Welding Is Required.**

Typical Physical Properties*

Hardness (as delivered).....	269/321 BHN
Tensile Strength.....	161,000 P.S.I.
Yield Strength.....	147,000 P.S.I.

*Based on 1/2" diameter test specimen.

Sizes Available*



Rounds
3/8" to 7-1/2"



Squares
1/2" to 6"



Flats
1/4" to 6" Thick
1" to 8" Wide

* Round bar stock is typically furnished as a rough hot roll.

Stock Lengths

Custom Cut To Lengths
10 Ft to 13 Ft Random Lengths

Typical Applications

Arbors	Axles	Bolts
Brake Dies	Chisels	Chuck Jaws
Dies	Gears	Pry Bars
Hubs	Journals	Mandrels
Punches	Shafting	Tool Shanks

Typical Chemical Analysis

C	Mn	P	S	Si
.38	.76	.022	.017	.27
Ni	Cr	Mo	W	
.12	.88	.55	.26	

Special Sizes are available, including Turned, Ground and Polished. All of our TG&P bars of **Tungsten Special** are custom made to order. Additional machining and straightening can be provided as a value-added service, please contact our office for details.

Further information regarding heat treatment, forging and welding, is available upon request.