MW Components

Carbon Steel Grade 1026 Data Sheet

AISI 1026 Carbon Steel, cold drawn, 19-32 mm (0.75-1.25 in) round

Subcategories: Carbon Steel; AISI 1000 Series Steel; Low Carbon Steel

Close Analogs:

Key Words: UNS G10260, ASTM A29, ASTM A273, ASTM A510, ASTM A519, ASTM A545, ASTM A576, carbon steels

Component	Weight %
C	Max 0.28
Fe	98.73-99.18
Mn	0.60-0.90
P	Max 0.040
S	Max 0.050

Physical Properties	Metric	English	Comments	Cold Head	Hot Forge	Wire Form
Density	7.858 g/cc	0.2839 lb/in³				

Mechanical Properties	Metric	English	Comments	Cold Head	Hot Forge	Wire Form
Hardness, Brinell	143	143				
Hardness, Knoop	163	163	Converted from Brinell hardness.			
Hardness, Rockwell B	78	78	Converted from Brinell hardness.			
Hardness, Vickers	149	149	Converted from Brinell hardness.			
Tensile Strength, Ultimate	490 MPa	71100 psi				
Tensile Strength, Yield	415 MPa	60200 psi				
Elongation at Break	15%	15%	In 50 mm			
Reduction of Area	40%	40%				

Modulus of Elasticity	205 GPa	29700 ksi	Typical for steel			
Bulk Modulus	160 GPa	23200 ksi	Typical for steel			
Poissons Ratio	0.29	0.29	Typical For Steel			
Machinability	75.00%	75.00%	Based on AISI 1212 steel. as 100% machinability			
Shear Modulus	80.0 GPa	11600 ksi	Typical for steel			
Electrical Properties	**Metric**	**English**	**Comments**	**Cold Head**	**Hot Forge**	**Wire Form**
Electrical Resistivity	0.0000169 ohm-cm	0.0000169 ohm-cm				
Thermal Properties	**Metric**	**English**	**Comments**	**Cold Head**	**Hot Forge**	**Wire Form**
CTE, linear	12.1 µm/m-°C	6.72 µin/in-°F				
	@Temperature 0.000 / 100 °C	@Temperature 32.0 / 212 °F				
	13.3 µm/m-°C	7.39 µin/in-°F				
	@Temperature 0.000 / 300 °C	@Temperature 32.0 / 572 °F				
	14.4 µm/m-°C	8.00 µin/in-°F				
	@Temperature 0.000 / 500 °C	@Temperature 32.0 / 932 °F				
Specific Heat Capacity	0.486 J/g-°C	0.116 BTU/lb-°F				
	@Temperature >=100 °C	@Temperature >=212 °F				
Thermal Conductivity	51.9 W/m-K	360 BTU-in/hr-ft²-°F				