HM Wire International, Inc.

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REQUEST A QUOTATION

AISI 1050 Carbon Steel

Nominal Composition:	C%	Mn%	P%	S%	Fe%
	0.470 - 0.55	0.60 - 0.90	<= 0.040	<= 0.050	98.46 - 98.92

Physical Properties

	English Units	Metric Units
Density	.284 lb / cu. in. @68 °F	7.85 c/cc

Mechanical Properties

	English Units	Metric Units
Hardness, Brinell	187	187
Hardness, Knoop	209	209
Hardness, Rockwell B	90	90
Hardness, Rockwell C	10	10
Hardness, Vickers	196	196
Tensile Strength, Ultimate	95000 psi	655 MPa
Tensile Strength, Yield	74700 psi	515 MPa
Elongation at Break	15% in 50 mm	15% in 50 mm
Modulus of Elasticity	29700 ksi	205 GPa
Poissons Ratio	0.290	0.290
Shear Modulus	11600 ksi	80.0 GPa

Electrical Properties

	English Units	Metric Units
Electrical Resistivity - Annealed Speciman	0.0000163 ohm-cm	0.0000163 ohm-cm
	0.0000224 ohm-cm @ Temperature 212°F	0.0000224 ohm-cm @ Temperature 100°C
	0.0000300 ohm-cm @ Temperature 392°F	0.0000300 ohm-cm @ Temperature 200°C

Thermal Properties

	English Units	Metric Units
Specific Heat Capacity	0.116 BTU/lb -°F	0.486 J/g -°C
Thermal Conductivity	346 BTU-in/hr-ft²- °F	49.8 W/m-K

*To be used as a guideline only.

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