

Tool Steel A2 is an air-hardening, high-carbon, high-chromium alloy steel primarily used for tooling and machining applications. It belongs to the cold work tool steel category and is known for its excellent combination of toughness, wear resistance, and dimensional stability.

Chemical Composition

Element	Maximum Unless Range is Specified
Silicon	.10-0.50
Carbon	.95-1.05
Phosphorus	.003
Sulfur	.030
Manganese	.40-1.00
Chromium	4.75-5.50
Molybdenum	.90-1.40
Vanadium	.15-.50
Iron	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in3	0.279
Coefficient of thermal expansion /°F from 68°F	6.5x10-6
Modules of Elasticity ,ksi	27,500

Mechanical Properties

Property	Maximum Unless Range is Specified
Bulk Modules,ksi	20,300
Shear Modulus,ksi	11,300
Poisson's ratio	0.27-0.30
Machinability (based on carbon tool steel)	65%
Hardness, Rockwell C	64

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.