

## ASTM A36 Steel, bar

**Categories:** [Metal](#); [Ferrous Metal](#); [ASTM Steel](#); [Carbon Steel](#); [Low Carbon Steel](#)

**Material Notes:** Minimum Cu content when copper steel is specified. Used for guardrails.

**Key Words:** UNS K02600

**Vendors:** [Click here to view all available suppliers for this material.](#)

Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

| Physical Properties | Metric    | English                  | Comments |
|---------------------|-----------|--------------------------|----------|
| Density             | 7.85 g/cc | 0.284 lb/in <sup>3</sup> |          |

| Mechanical Properties      | Metric        | English           | Comments                       |
|----------------------------|---------------|-------------------|--------------------------------|
| Tensile Strength, Ultimate | 400 - 550 MPa | 58000 - 79800 psi |                                |
| Tensile Strength, Yield    | 250 MPa       | 36300 psi         |                                |
| Elongation at Break        | 20.0 %        | 20.0 %            | in 200 mm                      |
|                            | 23.0 %        | 23.0 %            | In 50 mm.                      |
| Modulus of Elasticity      | 200 GPa       | 29000 ksi         |                                |
| Compressive Yield Strength | 152 MPa       | 22000 psi         | Allowable compressive strength |
| Bulk Modulus               | 140 GPa       | 20300 ksi         | Typical for steel              |
| Poissons Ratio             | 0.260         | 0.260             |                                |
| Shear Modulus              | 79.3 GPa      | 11500 ksi         |                                |

| Component Elements Properties | Metric     | English    | Comments |
|-------------------------------|------------|------------|----------|
| Carbon, C                     | 0.260 %    | 0.260 %    |          |
| Copper, Cu                    | 0.20 %     | 0.20 %     |          |
| Iron, Fe                      | 99.0 %     | 99.0 %     |          |
| Manganese, Mn                 | 0.75 %     | 0.75 %     |          |
| Phosphorous, P                | <= 0.040 % | <= 0.040 % |          |
| Sulfur, S                     | <= 0.050 % | <= 0.050 % |          |

[References](#) for this datasheet.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.