

Product Category: structural metal stud framing: specification section 05 40 00
Available Coatings: G60 (standard), G90. **Yield Strength:** 50 ksi
Product Name: 2-1/2DT16 **AISI Nomenclature:** 250T250-54
Product Description: 2-1/2 inch deep 16 gauge stud/joist member with 2 1/2" flanges

Material and Shape Property Notes:

Thickness: Design: 0.0566" • Minimum: 0.0538" • Designation: 54 mil • Equivalent Gauge: 16
Flange width: 2 1/2" • Web Depth: 2-1/2"

SECTION PROPERTIES

Gross Section Properties:

Cross Section Area (**A**): 0.42381 in²
Member Weight: 1.4409 pounds per foot
Moment of Inertia, strong axis (**I_x**): 0.5653 in⁴
Radius of Gyration, strong axis (**R_x**): 1.1549 in.
Moment of Inertia, weak axis (**I_y**): 0.2876 in⁴
Radius of Gyration, weak axis (**R_y**): 0.8238 in.

Effective Section Properties:

Effective Moment of Inertia (**I_{x eff}**): 0.3701 in⁴
Effective Section Modulus (**S_{x eff}**): 0.2180 in³
Allowable Moment (**M_a**): 6.527 inch-kips

Torsional Properties:

St. Venant Torsional Constant (**J** x 1000): 0.4526 in⁴
Warping Constant (**C_w**): 0.349 in⁶
Polar Radius of Gyration (**R_o**): 2.3553 in
Distance from shear center (**X_o**): -1.880 in
Beta: 0.3628 Flat web to thickness ratio (**h/t**): 39



CODES & STANDARDS

Super Stud products comply with the applicable provisions of the following:

International Building Code (IBC) 2006 - 2015
Sheet Steel: ASTM A1003 & ASTM A653
Galvanized Coating: ASTM A653
Members & Tolerances: ASTM C955
Meets ASTM C1007 when installed properly in structure

3rd Party Certification: Manufacturing verified & inspected
by Home Innovation Research Labs, Inc.

