

## 1600T250-97 (50ksi, CP60)

1600 (16") structural track with T250 (2-1/2") leg - 97mils (12ga)

Coating: CP60 per AISI S240

Color Code: Red

### Geometric Properties

Web depth: 16.356 in

Thickness: 97mils (12ga)

Yield strength,  $F_y$ : 50 ksi

Leg width: 2.50 in

Design Thickness: 0.1017 in

\* $F_y$  with Cold-Work,  $F_{ya}$ : 50.0 ksi

Min. steel thickness: 0.0966 in

Ultimate,  $F_u$ : 65.0 ksi

#### Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	2.133 in <sup>2</sup>
Member weight per foot of length	7.26 lb/ft
Moment of inertia (Ix)	68.143 in <sup>4</sup>
Section Modulus (Sx)	8.332 in <sup>3</sup>
Radius of gyration (Rx)	5.652 in
Gross moment of inertia (Iy)	0.821 in <sup>4</sup>
Gross radius of gyration (Ry)	0.620 in

#### Effective Section Properties, Strong Axis

Effective Area (Ae)	0.777 in <sup>2</sup>
Moment of inertia for deflection (Ix)	61.333 in <sup>4</sup>
Section modulus (Sx)	5.462 in <sup>3</sup>
Allowable bending moment (Ma)	163.53 in-k
Allowable shear force in web	5908 lb

#### Torsional Properties

St. Venant torsional constant (J x 1000)	7.355 in <sup>4</sup>
Warping constant (Cw)	42.361 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-0.868 in
Distance between shear center and web centerline (m)	0.581 in
Radii of gyration (Ro)	5.751 in
Torsional flexural constant (Beta)	0.977

- Effective properties incorporate the strength increase from the cold work of forming.

### Code Approvals & Performance Standards

- [AISI S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
- [AISI S240-20](#) North American Standard for Cold-Formed Steel Structural Framing
  - (Compliant to ASTM C955, but IBC replaced with AISI S200 in IBC 2015, AISI S240 in IBC 2018)
  - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
  - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
  - Section A5 Products - Thickness, shapes, tolerances, identification
  - Section C Installation - (Referencing ASTM C1007)
- [AISI S202-20](#) Code of Standard Practice for Cold-Formed Steel Structural Framing
  - Section F3 Delivery, Handling and Storage of Materials
- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories



- Load-bearing walls
- Curtain walls
- Tall interior walls
- Floor & ceiling joists
- Trusses



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