

**400T250-97 (50ksi, CP60)**
**400 (4") structural track with T250 (2-1/2") leg - 97mils (12ga)**
**Coating:** CP60 per AISI S240

**Color Code:** Red

**Geometric Properties**

**Web depth:** 4.356 in    **Thickness:** 97mils (12ga)    **Yield strength, Fy:** 50 ksi  
**Leg width:** 2.50 in    **Design Thickness:** 0.1017 in    **\*Fy with Cold-Work, Fya:** 50.0 ksi  
**Min. steel thickness:** 0.0966 in    **Ultimate, Fu:** 65.0 ksi

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

|                                  |                       |
|----------------------------------|-----------------------|
| Cross sectional area (A)         | 0.913 in <sup>2</sup> |
| Member weight per foot of length | 3.11 lb/ft            |
| Moment of inertia (Ix)           | 2.824 in <sup>4</sup> |
| Section Modulus (Sx)             | 1.297in <sup>3</sup>  |
| Radius of gyration (Rx)          | 1.759 in              |
| Gross moment of inertia (Iy)     | 0.588 in <sup>4</sup> |
| Gross radius of gyration (Ry)    | 0.802 in              |

**Effective Section Properties, Strong Axis**

|                                       |                       |
|---------------------------------------|-----------------------|
| Effective Area (Ae)                   | 0.680 in <sup>2</sup> |
| Moment of inertia for deflection (Ix) | 2.547 in <sup>4</sup> |
| Section modulus (Sx)                  | 0.965 in <sup>3</sup> |
| Allowable bending moment (Ma)         | 28.90 in-k            |
| Allowable shear force in web          | 7337 lb               |

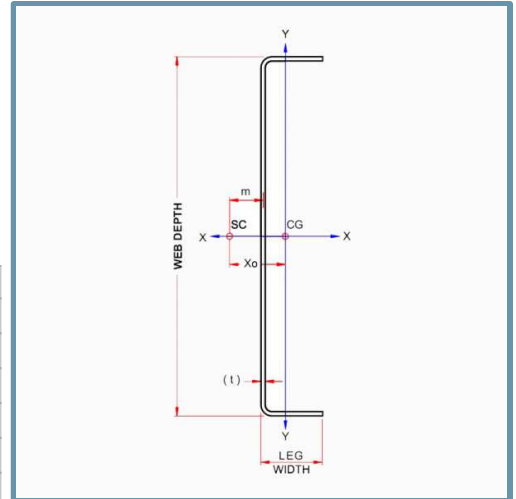
**Torsional Properties**

|  |                       |
|--|-----------------------|
| St. Venant torsional constant (J x 1000)             | 3.148 in <sup>4</sup> |
| Warping constant (Cw)                                | 1.885 in <sup>6</sup> |
| Distance from shear center to neutral axis (Xo)      | -1.618 in             |
| Distance between shear center and web centerline (m) | 0.950 in              |
| Radii of gyration (Ro)                               | 2.521 in              |
| Torsional flexural constant (Beta)                   | 0.588                 |

- 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
- [IBC 2021](#) International Building Code
- [ICC-ES ESR-1166P](#) Structural Studs and Track
  - [ESR-1166P LABC and LARC](#) Supplement
  - [ESR-1166P Catalog](#) ClarkDietrich Structural Technical Design Guide (6/22/20)
- [Intertek CRR-0206](#) Structural Studs and Track
- [SFIA Stud](#) Code Compliance Certification Program
- [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



**Sustainability Credits** For more details and LEED letters contact Technical Services at 888-437-3244 or visit [clarkdietrich.com/LEED](http://clarkdietrich.com/LEED).

- **LEED v4.1 MR Credit:** Environmental Product Declarations: EPD (1 point) - Sourcing of Raw Materials (up to 2 points) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points)
- **LEED v4 MR Credit:** Building Product Disclosure and Optimization: EPD (1 point) - Sourcing of Raw Materials (1 point) - Material Ingredients (1 point) - Construction and Demolition Waste Management (up to 2 points) - Innovation Credit (up to 2 points).