

05.40.00 (Cold-Formed Metal Framing)





Technical Services: 888-437-3244, Engineering Services: 877-832-3206, Sales 800-543-7140

## 400T300-97 (50ksi, CP60)

400 (4") structural track with T300 (3") leg - 97mils (12ga)

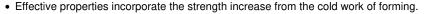
Coating: CP60 per AISI S240 Color Code: Red

## **Geometric Properties**

Web depth: 4.356 in Thickness: 97mils (12ga) Leg width: 3.00 in Design Thickness: 0.1017 in Yield strength, Fy: 50 ksi \*Fy with Cold-Work, Fya: 50.0 ksi

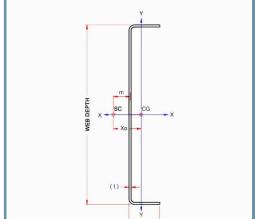
Min. steel thickness: 0.0966 in Ultimate, Fu: 65.0 ksi

Willi. Steel thickness. 0.0300 III	Ollinate, Fu. 65.0 KS
Gross Section Properties of Full Section, Strong Axis	
Cross sectional area (A)	1.015 in <sup>2</sup>
Member weight per foot of length	3.45 lb/ft
Moment of inertia (lx)	3.284 in <sup>4</sup>
Section Modulus (Sx)	1.508in <sup>3</sup>
Radius of gyration (Rx)	1.799 in
Gross moment of inerita (ly)	0.967 in <sup>4</sup>
Gross radius of gyration (Ry)	0.976 in
Effective Section Properties, S	Strong Axis
Effective Area (Ae)	0.689 in <sup>2</sup>
Moment of inertia for deflection (lx)	2.786 in <sup>4</sup>
Section modulus (Sx)	1.005 in <sup>3</sup>
Allowable bending moment (Ma)	30.10 in-k
Allowable shear force in web	7337 lb
Torsional Propertie	s
St. Venant torsional constant (J x 1000)	3.499 in <sup>4</sup>
Warping constant (Cw)	3.111 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)	-2.061 in
Distance between shear center and web centerline (m)	1.189 in
Radii of gyration (Ro)	2.905 in
Torsional flexural constant (Beta)	0.497



## **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
  - o (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)
  - o Section A5 Products Thickness, shapes, tolerances, identification
  - o Section C Installation (Referencing ASTM C1007)
- AISI S202-20 Code of Standard Practice for Cold-Formed Steel Structural Framing
  - o 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
  - o ESR-1166P Catalog ClarkDietrich Structural Technical Design Guide (6/22/20)
- Intertek CCRR-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.

- 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).