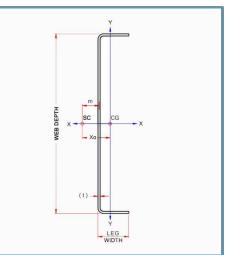


Technical Services: 888-437-3244, Engineering Services: 877-832-3206, Sales 800-543-7140

## 05.40.00 (Cold-Formed Metal Framing)

400T300-54 (50ksi, CP60) 400 (4") structural track with T300 (3") leg - 54mils (16ga)		
Coating: CP60 per AISI S240		Color Code: Green
Geometric Properties		
Web depth: 4.198 in Leg width: 3.00 in	Thickness: 54mils (16ga) Design Thickness: 0.0566 in Min. steel thickness: 0.0538 in	Yield strength, Fy: 50 ksi *Fy with Cold-Work, Fya: 50.0 ksi Ultimate, Fu: 65.0 ksi
Gross Section Properties of Full Section, Strong Axis		
Cross sectional area (A)		0.565 in <sup>2</sup>
Member weight per foot of length		1.92 lb/ft
Moment of inertia (Ix)		1.754 in <sup>4</sup>
Section Modulus (Sx)		0.835in <sup>3</sup>
Radius of gyration (Rx)		1.761 in
Gross moment of inerita (ly)		0.548 in <sup>4</sup>
Gross radius of gyration (Ry)		0.985 in
Effective Section Properties, Strong Axis		
Effective Area (Ae)		0.237 in <sup>2</sup>
Moment of inertia for deflection (lx)		1.224 in <sup>4</sup>
Section modulus (Sx)		0.427 in <sup>3</sup>
Allowable bending moment (Ma)		12.77 in-k
Allowable shear force in web		3372 lb
Torsional Properties		
St. Venant torsional constant (J x 1000)		0.604 in <sup>4</sup>
Warping constant (Cw)		1.662 in <sup>6</sup>
Distance from shear center to neutral axis (Xo)		-2.090 in
Distance between shear center and web centerline (m)		1.206 in



· Load-bearing walls

- · Curtain walls
- Tall interior walls
- · Floor & ceiling joists
- Trusses



· 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)

2.905 in

0.482

- 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 o Section F3 Delivery, Handling and Storage of Materials
- IBC 2021 International Building Code

Radii of gyration (Ro)

Torsional flexural constant (Beta)

- 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 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

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).