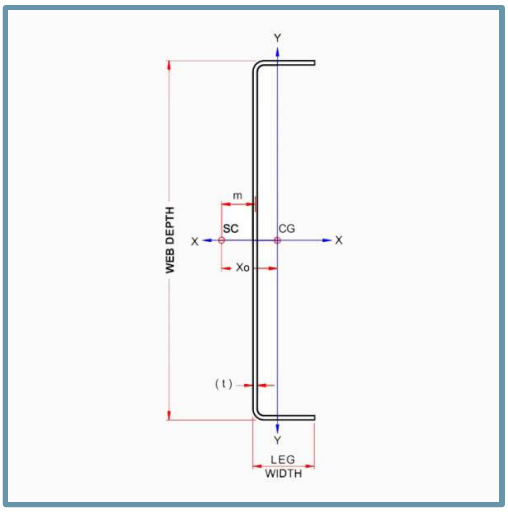
400T250-54 (50ksi, CP60)

400 (4") structural track with T250 (2-1/2") leg - 54mils (16ga)

Coating: CP60 per AISI S240

Color Code: Green



Geometric Properties

Web depth: 4.198 in
Leg width: 2.50 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)	0.509 in^2
Member weight per foot of length	1.73 lb/ft
Moment of inertia (Ix)	1.511 in^4
Section Modulus (Sx)	0.720in^3
Radius of gyration (Rx)	1.723 in
Gross moment of inerita (Iy)	0.335 in^4
Gross radius of gyration (Ry)	0.811 in
Effective Section Properties, Strong Axis	
Effective Area (Ae)	0.236 in^2
Moment of inertia for deflection (Ix)	1.137 in^4
Section modulus (Sx)	0.414 in^3
Allowable bending moment (Ma)	12.38 in-k
Allowable shear force in web	3372 lb
Torsional Properties	
St. Venant torsional constant (J x 1000)	0.543 in^4
Warping constant (Cw)	1.011 in^6
Distance from shear center to neutral axis (Xo)	-1.646 in
Distance between shear center and web centerline (m)	0.966 in
Radii of gyration (Ro)	2.517 in
Torsional flexural constant (Beta)	0.572

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

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

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 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).