

05.40.00 (Cold-Formed Metal Framing)

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



1400T200-54 (50ksi, CP60)

1400 (14") structural track with T200 (2") leg - 54mils (16ga)

Coating: CP60 per AISI S240 Color Code: Green

Geometric Properties

Web depth: 14.198 in Leg width: 2.00 in Thickness: 54mils (16ga) Design Thickness: 0.0566 in

Yield strength, Fy: 50 ksi
*Fy with Cold-Work, Fya: 50.0 ksi

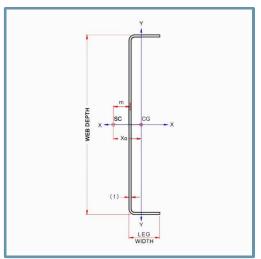
Min. steel thickness: 0.0538 in Ultimate, Fu: 65.0 ksi

| Gross Section Properties of Full Sec | ction, Strong Axis |
|--|------------------------|
| Cross sectional area (A) | 1.018 in ² |
| Member weight per foot of length | 3.46 lb/ft |
| Moment of inertia (lx) | 24.232 in ⁴ |
| Section Modulus (Sx) | 3.413in ³ |
| Radius of gyration (Rx) | 4.879 in |
| Gross moment of inerita (ly) | 0.242 in ⁴ |
| Gross radius of gyration (Ry) | 0.487 in |
| Effective Section Properties, | Strong Axis |
| Effective Area (Ae) | 0.249 in ² |
| Moment of inertia for deflection (lx) | 18.392 in ⁴ |
| Section modulus (Sx) | 1.589 in ³ |
| Allowable bending moment (Ma) | 47.57 in-k |
| Allowable shear force in web | 1160 lb |
| Torsional Propertie | s |
| St. Venant torsional constant (J x 1000) | 1.087 in ⁴ |
| Warping constant (Cw) | 9.520 in ⁶ |
| Distance from shear center to neutral axis (Xo) | -0.665 in |
| Distance between shear center and web centerline (m) | 0.449 in |
| Radii of gyration (Ro) | 4.948 in |
| Torsional flexural constant (Beta) | 0.982 |

- Effective properties incorporate the strength increase from the cold work of forming.
- Web-height to thickness ratio exceeds 200. Web Stiffeners are required at all support points and concentrated loads.

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
 - 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
 - o 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



- 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).