

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

05.40.00 (Cold-Formed Metal Framing)

400T250-68 (50ksi, CP60)

Section Modulus (Sx) Radius of gyration (Rx)

Effective Area (Ae)

Section modulus (Sx)

Warping constant (Cw)

Radii of gyration (Ro)

Gross moment of inerita (ly)

Gross radius of gyration (Ry)

Moment of inertia for deflection (lx)

Allowable bending moment (Ma) Allowable shear force in web

Torsional flexural constant (Beta)

St. Venant torsional constant (J x 1000)

Distance from shear center to neutral axis (Xo)

Distance between shear center and web centerline (m)

400 (4") structural track with T250 (2-1/2") leg - 68mils (14ga)

Coating: CP60 per AISI S240		Color Code: Orange
Geometric Proper	rties	
Web depth: 4.250 in Leg width: 2.50 in	Thickness: 68mils (14ga) Design Thickness: 0.0713 in Min. steel thickness: 0.0677 in	Yield strength, Fy: 50 ksi *Fy with Cold-Work, Fya: 50.0 ksi Ultimate, Fu: 65.0 ksi
	Gross Section Properties of Full S	ection, Strong Axis
Cross sectional area (A)		0.641 in ²
Member weight per foot of length		2.18 lb/ft
Moment of inertia (Ix)		1.928 in ⁴

WEB DEPTH	
	(t)

• 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)

Effective Section Properties, Strong Axis

Torsional Properties

0.908in³

1.735 in

0.418 in⁴

0.808 in

0.361 in²

1.560 in⁴

0.574 in³ 17.19 in-k

5205 lb

1.086 in⁴

1.289 in⁶

-1.637 in

0.961 in

2.519 in

0.578

- 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).