

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

## 05.40.00 (Cold-Formed Metal Framing)

## 550T300-33 (33ksi, CP60)

## 550 (5-1/2") structural track with T300 (3") leg - 33mils (20ga)

 Coating: CP60 per AISI S240
 Color Code: White

 Geometric Properties

Web depth: 5.646 in	Thickness: 33mils (20ga)	
Leg width: 3.00 in	Design Thickness: 0.0346 in	
	Min. steel thickness: 0.0329 in	

Yield strength, Fy: 33 ksi \*Fy with Cold-Work, Fya: 33.0 ksi Ultimate, Fu: 45.0 ksi

Gross Section Properties of Full Section, Strong Axis		
Cross sectional area (A)	0.398 in <sup>2</sup>	
Member weight per foot of length	1.35 lb/ft	
Moment of inertia (Ix)	2.112 in <sup>4</sup>	
Section Modulus (Sx)	0.748in <sup>3</sup>	
Radius of gyration (Rx)	2.304 in	
Gross moment of inerita (ly)	0.374 in <sup>4</sup>	
Gross radius of gyration (Ry)	0.969 in	
Effective Section Properties, Strong Axis		
Effective Area (Ae)	0.115 in <sup>2</sup>	
Moment of inertia for deflection (lx)	1.464 in <sup>4</sup>	
Section modulus (Sx)	0.303 in <sup>3</sup>	
Allowable bending moment (Ma)	5.98 in-k	
Allowable shear force in web	680 lb	
Torsional Properties		
St. Venant torsional constant (J x 1000)	0.159 in <sup>4</sup>	
Warping constant (Cw)	2.067 in <sup>6</sup>	
Distance from shear center to neutral axis (Xo)	-1.909 in	
Distance between shear center and web centerline (m)	1.135 in	
Radii of gyration (Ro)	3.146 in	
Torsional flexural constant (Beta)	0.632	

HLAG ORAN

Load-bearing walls

Curtain walls

Tall interior walls

Floor & ceiling joists

Trusses



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

• This section does not meet the requirements of AISI North American Specifications. Increase the thickness or contact ClarkDietrich Tech Support for design solutions.

## **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).