

400PDT125-18 (50ksi, G40EQ)

4" ProTRAK® 20 (18mil) Drywall Track with PDT125 (1-1/4") legs

Coating: G40EQ

Color Code: Brown

Geometric Properties

Web depth: 4.000 in

Design Thickness: 0.0190 in

Leg width: 1.250 in

Min. steel thickness: 0.0181 in

Yield strength, F_y : 50 ksi

Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.123 in ²
Member weight per foot of length	0.420 lb/ft
Moment of inertia (Ix)	0.297 in ⁴
Radius of gyration (Rx)	1.550 in
Gross moment of inertia (Iy)	0.017 in ⁴
Gross radius of gyration (Ry)	0.374 in

Effective Section Properties, Strong Axis

Effective Area (Ae)	0.029 in ²
Moment of inertia for deflection (Ixe)	0.211 in ⁴
Section modulus (Sxe)	0.055 in ³
Allowable bending moment (Ma)	1,653 in-lbs
Allowable shear force in web (Vag)	154 lb

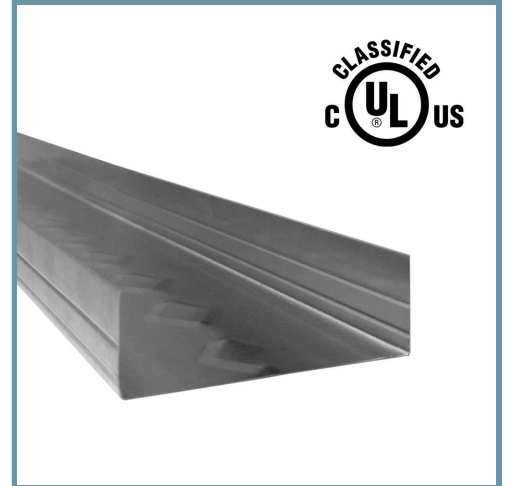
Torsional Properties

St. Venant torsional constant (J x 1000)	0.0149 in ⁴
Warping constant (Cw)	0.051 in ⁶
Distance from shear center to neutral axis (Xo)	-0.638 in
Radii of gyration (Ro)	1.718 in
Torsional flexural constant (Beta)	0.862

- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A3.3.2 of AISI S100-16 (2020) w/S2-20.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a $k\text{-}\phi = 0$.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

Code Approvals & Performance Standards

- [AISI S100-16 \(2020\) w/S2-20](#) North American Specification for the Design of Cold-Formed Steel Structural Members
- [AISI S220-20](#) North American Standard for Cold-Formed Steel Framing - Nonstructural Members
 - (Compliant to ASTM C645, but IBC replaced with AISI S220 in IBC 2015)
 - 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 C754)
- [AISI S202-20](#) Code of Standard Practice for Cold-Formed Steel Structural Framing
 - Section F3 Delivery, Handling and Storage of Materials
- [ASTM E72](#) Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- [ASTM E90](#) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- [ASTM E119](#) Standard Test Methods for Fire Tests of Building Construction and Materials
- [IBC 2024](#) International Building Code
- [Intertek CCRR-0207](#) Non-Structural Metal Framing
- [LA RR #26019](#) City of Los Angeles ProSTUD Research Report
- [UL Designs 263](#) "Fire Tests of Building Construction and Materials"
- [UL File Number R26512](#) Full list of ProSTUD and ProTRAK UL design assemblies
- [SDS For ASTM A1003 Steel Framing Products](#) For Interior Framing, Exterior Framing and Clips/Accessories



- Embossments in web are only placed on sections 2-1/2" and wider.
- U.S. Patent No. 9,010,070

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).