

**Product category:** ProTRAK® 20 Drywall Track 1-1/4" leg  
**Product name:** 400PDT125-18 50ksi G40EQ - Unpunched  
 4" ProTRAK 20 (18mil)

Coating: G40EQ  
 Color coding: Brown

### Geometric Properties

Inside web depth	4.000 in	Weight	0.420 lb/ft
Leg width	1.250 in	Minimum thickness	0.0181 in
Design thickness	0.0190 in		
Yield stress, Fy	50 ksi		

### Gross Section Properties of Full Section, Strong Axis

Cross sectional area (A)	0.123 in <sup>2</sup>
Moment of inertia (Ix)	0.297 in <sup>4</sup>
Radius of gyration (Rx)	1.550 in
Gross moment of inertia (Iy)	0.017 in <sup>4</sup>
Gross radius of gyration (Ry)	0.374 in

### Effective Section Properties, Strong Axis

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

### Torsional Properties

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

### Code Approvals & Performance Standards

Calculated properties are based on:

#### AISI S100-16 North American Specification for the Design of CFS Structural Members

- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- 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-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.

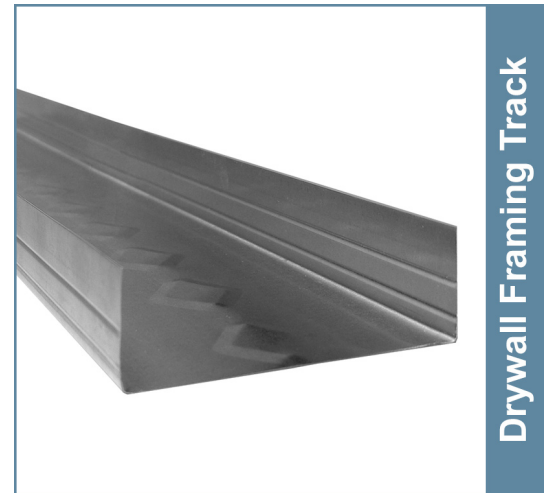
#### AISI S220-15 North American Standard for CFS Framing - Nonstructural Members

- Section A4 - Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
- Section A5 - Corrosion Protection (Referencing ASTM A653/A653M)
- Section A6 - Products - Thickness, shapes, tolerances, identification
- Section C - Installation - (Referencing ASTM C754)

#### ClarkDietrich's nonstructural framing comply with:

- IBC-2018 - International Building Code
- Intertek CCRR-0207, LA RR #26019, NYC - OTCR
- SFIA Code Compliance Certification Program
- ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- SDS & Product Certification Information is available at [www.clarkdietrich.com/SupportDocs](http://www.clarkdietrich.com/SupportDocs)

### 09.22.16 (Non-Structural Metal Framing)



\* Embossments in web are only placed on sections 2-1/2" and wider.

#### UL® Testing Standard

- UL® 263, ASTM E119
- Over 50 UL® design listings
- UL® file number R26512
- U.S. Patent No. 9,010,070



### Sustainability Credits:

For more details and LEED letters contact Technical Services at 888-437-3244 or visit [www.clarkdietrich.com/LEED](http://www.clarkdietrich.com/LEED)

**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).

**LEED 2009 Credit MR 2 & MR 4** -- ClarkDietrich's steel products are 100% recyclable and have a national average recycled content of 34.2% (19.8% post-consumer and 14.4% pre-consumer). If seeking a higher number to meet Credit MR 5, please contact us at ([info@clarkdietrich.com](mailto:info@clarkdietrich.com) / 888-437-3244)