

ProSTUD® 400PDS125-15G90

Product Description 4" PROSTUD®25 (15MIL) G90
Coating G90

Physical Properties

Design Thickness (in)	0.0158
Minimum Thickness (in)	0.015
Web Width (in)	4
Flange Width (in)	1.25
Stiffening Lip (in)	0.25
Yield Strength (ksi)	50



Gross Section Properties

Cross Sectional Area (A)	0.108
Moment of Inertia (Ix)	0.26
Radius of Gyration (Rx)	1.549
Gross Moment of Inertia (Iy)	0.021
Gross Radium of Gyration (Ry)	0.436

Effective Section Properties

Effective Area (Ae)	0.034
Moment of Inertia for deflection (Ixe)	0.233
Section Modulus (Sxe)	0.062
Allowable Bending moment (Ma)	1870
Allowable shear force in web (U)(Vag)	90
Allowable shear force in web (P) (Vanet)	90

Torsional Properties

St. Venant torsion constant (J x 1000)	0.00901
Warping constant (Cw)	0.064
Distance from shear center to neutral axis (Xo)	-0.803
Radii of gyration (Ro)	1.798
Torsional flexural constant (Beta)	0.8
Unbraced Length (Lu)	24.2

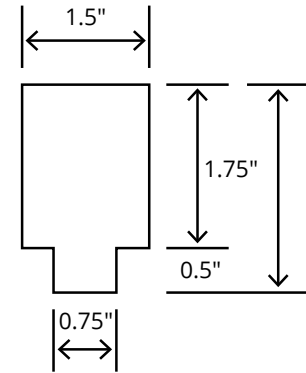
ASTM & Code Standards

• AISI S100-07 & S220-11 • Meets or exceeds ASTM C645 & C754 • ASTM E119, E72, & E90 • ATI CCRR-0207 • LA RR 26019

Mill Steel Framing LEED Green Credits

- MR Credit 2** • ConstructionWaste Management – Mill Steel Framing steel framing is 100% recyclable
- MR Credit 4** • Recycled Content – Mill Steel Framing products contain no less than 25.5% post-consumer and 6.8% pre-consumer recycled content
- MR Credit 5** • Regional Materials – Mill Steel Framing has manufacturing facilities in Indiana, Alabama & Texas
- V4 MR Credits** • Building Product Disclosure and Optimization EPD (1 point)
- Materials Ingredients (1 point) – Construction and Demolition Waste Management (1 point)

Punch Out



Notes

1. Calculated properties are based on AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-15, North American Standard for Cold-Formed Steel Framing - NonStructural Members.
2. Effective Properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
3. Tabulated gross properties including torsional properties are based on full-unreduced cross section of the studs, away from punchouts.
4. For deflection calculations, use the effective moment of inertia.
5. Allowable moment includes cold-work of forming.
6. Allowable moment is taken as the lowest value based on load or distortional buckling. Distortional buckling strength is based on a k-phi = 0.

