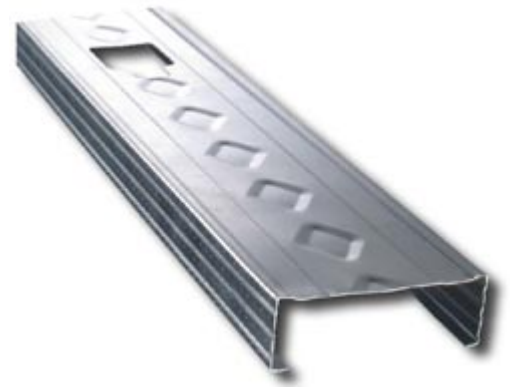


PRODUCT CATEGORY: PROSTUD 20 GA STR  
 PRODUCT NUMBER: 550PDS125-33  
 COATING: G40


**PHYSICAL PROPERTIES**

WEB DEPTH: 5.5000 IN.  
 FLANGE HEIGHT: 1.2500 IN.  
 STIFFENING LIP: 0.2500 IN.  
 DESIGN THICKNESS: 0.0346 IN.  
 YIELD: 33 KSI  
 WEIGHT: 0.9727 LB/LFT

**GROSS SECTION PROPERTIES**

CROSS SECTIONAL AREA (A): 0.2859 IN<sup>2</sup>  
 MOMENT OF INERTIA (IX): 1.1839 IN<sup>4</sup>  
 RADIUS OF GYRATION (RX): 2.0349 IN.  
 GROSS MOMENT OF INERTIA: (IY) 0.0462 IN<sup>4</sup>  
 GROSS RADIUS OF GYRATION (RY): 0.4019 IN.

**EFFECTIVE SECTION PROPERTIES**

EFFECTIVE AREA (AE): 0.1300 IN.  
 MOMENT OF INERTIA (IX): 1.1671 IN<sup>4</sup>  
 SECTION MODULUS (SX): 0.3618 IN<sup>3</sup>  
 ALLOWABLE BENDING MOMENT (MA): 6,439.41 IN-KIPS.

**TORSIONAL PROPERTIES**

ST VENANT TORSION CONSTANT (JX1000): 0.1141 IN<sup>4</sup>  
 WARPING CONSTANT (CW): 0.2723 IN<sup>6</sup>  
 DISTANCE FROM SHEAR CENTER TO NEUTRAL AXIS (X0): -0.6762 IN.  
 RADII OF GYRATION (RO): 2.1816 IN.  
 TORSIONAL FLEXURAL CONSTANT (B): 0.9039  
 UNBRACED LENGTH (LU): 28.8578 IN.

**NOTES:**

- 1) CALCULATED PROPERTIES ARE BASED ON AISI S100-07,NASPEC FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.
- 2) EFFECTIVE PRPERTIES INCORPORATE THE STRENGTH INCREASE FROM COLD 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) ALLOWABLE MOMENT INCLUDES COLD WORK OF FORMING
- 5) ALLOWABLE MOMENT IS TAKEN AS THE LOWEST VALUE BASED ON LOCAL OR DISTORTIONAL BUCKLING. DISTORTIONAL BUCKING STRENGTH IS BASED ON A K-PHI

**COMPLIES WITH ASTM C645**

**LEED CREDITS MR 2:** CONSTRUCTION WASTE MATERIAL-RAM STEEL FRAMING IS 100% RECYCLEABLE

**LEED CREDITS MR 4:** RAM STEEL FRAMING IS FORMED WITH A MINIMUM 25.5% POST CONSUMER AND 14.4% PRE-CONSUMER CONTENT

**LEED CREDITS MR 5:** REGIONAL MATERIALS MAY APPLY

PROJECT INFORMATION	CONTRACTOR INFORMATION	ARCHITECT INFORMATION
NAME:	NAME:	NAME:
ADDRESS:	CONTACT:	CONTACT:
	PHONE:	PHONE:
	FAX:	FAX:

PRODUCT CATEGORY: PROSTUD 20 GA STR  
 PRODUCT NUMBER: 550PDS125-33

**LIMITING HEIGHTS**

SPACING INCHES	5 PSF			7.5 PSF			10 PSF		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12	34'-11"	28'-11"	25'-0"	30'-6"	25'-3"	21'-10"	27'-8"	22'-11"	19'-10"
16	31'-8"	26'-3"	22'-9"	27'-8"	22'-11"	19'-10"	25'-2"	20'-10"	18'-0"
24	27'-8"	22'-11"	19'-10"	24'-2"	20'-0"	17'-2"	22'-0"	18'-2"	-

**NOTES:**

- \* ALLOWABLE COMPOSITE LIMITING HEIGHTS WERE DETERMINED IN ACCORDANCE WITH ICC•ES AC86•2010.
- \* ADDITIONAL COMPOSITE WALL TESTING AND ANALYSIS REQUIREMENTS OF THE SFIA CODE COMPLIANCE CERTIFICATION PROGRAM WAS OBSERVED.
- \* IN ACCORDANCE WITH CURRENT BUILDING CODES AND AISI DESIGN STANDARDS, THE 1/3 STRESS INCREASE FOR STRENGTH WAS NOT USED.
- \* THE COMPOSITE LIMITING HEIGHTS PROVIDED IN THE TABLES ARE BASED ON A SINGLE LAYER OF TYPE X GYPSUM BOARD FROM THE FOLLOWING MANUFACTURERS: AMERICAN, CERTAINTEED, GEORGIA PACIFIC, LAFARGE, NATIONAL, TEMPLE INLAND, AND USG.
- \* THE GYPSUM BOARD MUST BE APPLIED FULL HEIGHT IN THE VERTICAL ORIENTATION TO EACH STUD FLANGE AND INSTALLED IN ACCORDANCE WITH ASTM C754•2004 USING MINIMUM NO. 6 TYPE S DRYWALL SCREWS SPACED AS LISTED BELOW:
  - SCREWS SPACED A MINIMUM OF 16 IN ON•CENTER TO FRAMING MEMBERS SPACED AT 16 IN OR 12 IN ON•CENTER.
  - SCREWS SPACED A MINIMUM OF 12 IN ON•CENTER TO FRAMING MEMBERS SPACED AT 24 IN ON•CENTER.
- \* NO FASTENERS ARE REQUIRED FOR ATTACHING THE STUD TO THE TRACK EXCEPT AS DETAILED IN ASTM C754•2004.
- \* STUD END BEARING MUST BE A MINIMUM OF 1 INCH.
- F ADJACENT TO THE HEIGHT VALUE INDICATES THAT FLEXURAL STRESS CONTROLS THE ALLOWABLE WALL HEIGHT.
- S ADJACENT TO THE HEIGHT VALUE INDICATES THAT SHEAR/END REACTION CONTROLS THE ALLOWABLE WALL HEIGHT.

**NON-COMPOSITE LIMITING HEIGHTS**

SPACING INCHES	5 PSF			7.5 PSF			10 PSF		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12									
16									
24									

**FULLY BRACED NON-COMPOSITE LIMITING HEIGHTS TABLE NOTES**

- \* HEIGHTS ARE BASED ON 2007 NORTH AMERICAN SPECIFICATION S100-07 USING STEEL PRPERTIES ALONE.
- \* ABOVE LISTED NON-COMPOSITE LIMITING HEIGHTS IS APPLICABLE WHEN THE UNBRACED LENGTH IS LESS THAN OR EQUAL TO L.
- \* HEIGHTS NOT IN PARENTHESES ARE LIMITED BY MOMENT, DEFLECTION, SHEAR, AND WEB CRIPPLING (ASSUMING 1" END REACTION BEARING).
- \* HEIGHTS IN PARENTHESES ARE LIMITED BY MOMENT, DEFLECTION, AND SHEAR, AND REQUIRE END BEARING STIFFENERS IN ORDER TO ACHIEVE THE INDICATED HEIGHT.
- \* DEPTH OVER THICKNESS (H/T) RATIO IS GREATER THAN 200.