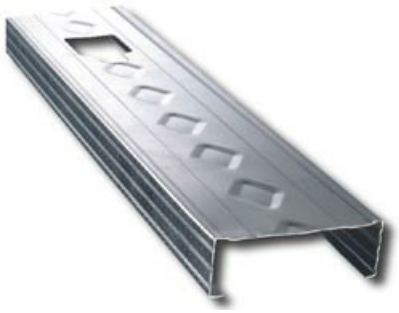
| | |
|---|---|
| PRODUCT CATEGORY: | ProSTUD |
| PRODUCT NUMBER: | 600PDS125-30 |
| COATING: | G40 (G60/G90 Available) |



**PHYSICAL PROPERTIES**

| | |
|---|---|
| WEB DEPTH: | 6.000 IN |
| FLANGE HEIGHT: | 1.250 IN |
| DESIGN THICKNESS: | 0.0312 IN |
| YIELD: | 33 KSI |
| WEIGHT: | 0.93 LB/LFT |

**GROSS SECTION PROPERTIES**

| | |
|---|---|
| CROSS SECTIONAL AREA (A): | 0.274 $IN^2$ |
| MOMENT OF INERTIA (Ix): | 1.324 $IN^4$ |
| RADIUS OF GYRATION (Rx): | 2.199 IN |
| GROSS MOMENT OF INERTIA (Iy): | 0.043 $IN^4$ |
| GROSS RADIUS OF GYRATION (Ry): | 0.396 IN |

**EFFECTIVE SECTION PROPERTIES**

| | |
|---|---|
| EFFECTIVE AREA (Ae): | 0.109 $IN^2$ |
| MOMENT OF INERTIA (Ix): | 1.281 $IN^4$ |
| SECTION MODULUS (Sx): | 0.338 $IN^3$ |
| ALLOWABLE BENDING MOMENT (Ma): | 6031 IN-LBS |
| ALLOWABLE SHEAR FORCE (Vag): | 461 LB |
| ALLOWABLE SHEAR FORCE (VANET): | 461 LB |

**TORSIONAL PROPERTIES**

| | |
|---|---|
| ST VENANT TORSION CONSTANT (J x 1000): | 0.08888 $IN^4$ |
| WARPING CONSTANT (Cw): | 0.303 $IN^6$ |
| DISTANCE FROM SHEAR CENTER TO NEUTRAL AXIS (Xo): | -0.651 IN |
| RADII OF GYRATION (Ro): | 2.327 IN |
| TORSIONAL FLEXURAL CONSTANT (B): | 0.922 |
| UNBRACED LENGTH (LU): | 28.7 IN |

**SECTION PROPERTIES TABLE NOTES:**

- 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 FRAMINGâ€"NONSTRUCTURAL 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 STUDS, AWAY FROM PUNCHOUTS
- 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

**LEED:**

- COMPLIES WITH ASTM C955
- 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

| | |
|---|---|
| PRODUCT CATEGORY: | ProSTUD |
| PRODUCT NUMBER | 600PDS125-30 |

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 | 36' 7" | 29' 1" | 25' 5" | 32' 0" | 25' 5" | 22' 2" | 29' 1" | 23' 1" | 20' 2" |
| 16 | 33' 3" | 26' 5" | 23' 1" | 29' 1" | 23' 1" | 20' 2" | 26' 5" | 20' 11" | 18' 4" |
| 24 | 29' 1" | 23' 1" | 20' 2" | 25' 5" | 20' 2" | 17' 7" | 22' 6" f | 18' 4" | |

COMPOSITE TABLE NOTES:

- ALLOWABLE COMPOSITE LIMITING HEIGHTS WERE DETERMINED IN ACCORDANCE WITH ICC-ES AC86-2015.
- ADDITIONAL COMPOSITE WALL TESTING AND ANALYSIS REQUIREMENTS OF THE SFIA CODE COMPLIANCE CERTIFICATION PROGRAM WERE 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 5/8" TYPE X GYPSUM BOARD FROM THE FOLLOWING MANUFACTURERS: AMERICAN, CERTAINTEED, GEORGIA PACIFIC, CONTINENTAL, NATIONAL, PABCO, 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
  USING MINIMUM NO. 6 TYPE S DRYWALL SCREWS SPACED AS LISTED BELOW:
- SCREWS SPACED A MINIMUM OF 16 IN. O.C. TO FRAMING MEMBERS SPACED AT 16 IN. OR 12 IN. O.C.
- SCREWS SPACED A MINIMUM OF 12 IN. O.C. TO FRAMING MEMBERS SPACED AT 24 IN. O.C.
- NO FASTENERS ARE REQUIRED FOR ATTACHING THE STUD TO THE TRACK EXCEPT AS DETAILED IN ASTM C754.
- 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 | 28' 4" | 25' 7" | 22' 4" | 23' 2" | 22' 4" | 19' 7" | 20' 1" | 20' 1" | 17' 9" |
| 16 | 24' 7" | 23' 3" | 20' 4" | 20' 1" | 20' 1" | 17' 9" | 17' 4" | 17' 4" | 16' 2" |
| 24 | 20' 1" | 20' 1" | 17' 9" | 16' 4" | 16' 4" | 15' 6" | 14' 2" | 14' 2" | 14' 1" |

NON-COMPOSITE TABLE NOTES

- HEIGHTS ARE BASED ON AISI S100-12, NORTH AMERICAN SPECIFICATION AND AISI S220-15, NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING NONSTRUCTURAL MEMBERS, USING STEEL PROPERTIES ALONE.
- ABOVE LISTED NON-COMPOSITE LIMITING HEIGHTS ARE APPLICABLE WHEN THE UNBRACED LENGTH IS LESS THAN OR EQUAL TO LU.
- HEIGHTS ARE LIMITED BY MOMENT, DEFLECTION, SHEAR, AND WEB CRIPPLING (ASSUMING 1' END REACTION BEARING).
- WEB STIFFENERS ARE REQUIRED AT BEARING POINTS.