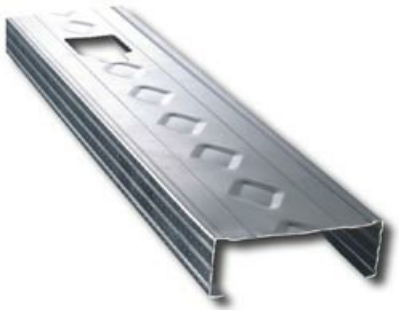
PRODUCT CATEGORY:	ProSTUD
PRODUCT NUMBER:	600PDS125-18
COATING:	G40 (G60/G90 Available)



PHYSICAL PROPERTIES

WEB DEPTH:	6.000 IN
FLANGE HEIGHT:	1.250 IN
DESIGN THICKNESS:	0.019 IN
YIELD:	70 KSI
WEIGHT:	0.59 LB/LFT

GROSS SECTION PROPERTIES

CROSS SECTIONAL AREA (A):	0.173 IN^2
MOMENT OF INERTIA (Ix):	0.855 IN^4
RADIUS OF GYRATION (Rx):	2.223 IN
GROSS MOMENT OF INERTIA (Iy):	0.032 IN^4
GROSS RADIUS OF GYRATION (Ry):	0.431 IN

EFFECTIVE SECTION PROPERTIES

EFFECTIVE AREA (Ae):	0.046 IN^2
MOMENT OF INERTIA (Ix):	0.669 IN^4
SECTION MODULUS (Sx):	0.141 IN^3
ALLOWABLE BENDING MOMENT (Ma):	5891 IN-LBS
ALLOWABLE SHEAR FORCE (Vag):	104 LB
ALLOWABLE SHEAR FORCE (VANET):	104 LB

TORSIONAL PROPERTIES

ST VENANT TORSION CONSTANT (J x 1000):	0.02083 IN^4
WARPING CONSTANT (Cw):	0.233 IN^6
DISTANCE FROM SHEAR CENTER TO NEUTRAL AXIS (Xo):	-0.739 IN
RADII OF GYRATION (Ro):	2.382 IN
TORSIONAL FLEXURAL CONSTANT (B):	0.904
UNBRACED LENGTH (LU):	23.6 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	600PDS125-18

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	32' 1"	25' 6"	22' 3"	28' 1"	22' 3"	19' 5"	24' 4" f	20' 3"	17' 8"
16	29' 10"	23' 8"	20' 8"	24' 10" f	20' 8"	18' 1"	21' 6" f	18' 9"	16' 5"
24	25' 5" f	21' 1"	18' 5"	20' 9" f	18' 5"	16' 1"	18' 0" f	16' 9"	14' 6"

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	26' 0"	20' 8"	18' 0"	21' 11"	18' 0"	15' 9"	19' 0"	16' 4"	14' 4"
16	23' 3"	18' 9"	16' 4"	19' 0"	16' 4"	14' 4"	15' 7"	14' 11"	13' 0"
24	19' 0"	16' 4"	14' 4"	13' 10"	13' 10"	12' 6"	10' 5"	10' 5"	10' 5"

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.