

PRODUCT CATEGORY: ProTRAK
 PRODUCT NUMBER: 400PDT125-15
 COATING: G40 (G60/G90 Available)


PHYSICAL PROPERTIES

WEB DEPTH: 4.000 IN
 FLANGE HEIGHT: 1.250 IN
 DESIGN THICKNESS: 0.0158 IN
 YIELD: 50 KSI
 WEIGHT: 0.35 LB/LFT

GROSS SECTION PROPERTIES

CROSS SECTIONAL AREA (A): 0.103 IN²
 MOMENT OF INERTIA (Ix): 0.247 IN⁴
 RADIUS OF GYRATION (Rx): 1.55 IN
 GROSS MOMENT OF INERTIA (Iy): 0.014 IN⁴
 GROSS RADIUS OF GYRATION (Ry): 0.374 IN

EFFECTIVE SECTION PROPERTIES

EFFECTIVE AREA (Ae): 0.021 IN²
 MOMENT OF INERTIA (Ix): 0.153 IN⁴
 SECTION MODULUS (Sx): 0.039 IN³
 ALLOWABLE BENDING MOMENT (Ma): 1171 IN-LBS
 ALLOWABLE SHEAR FORCE (Vag): 89 LB

TORSIONAL PROPERTIES

ST VENANT TORSION CONSTANT (J x 1000): 0.00854 IN⁴
 WARPING CONSTANT (Cw): 0.043 IN⁶
 DISTANCE FROM SHEAR CENTER TO NEUTRAL AXIS (Xo): -0.64 IN
 RADII OF GYRATION (Ro): 1.718 IN
 TORSIONAL FLEXURAL CONSTANT (B): 0.861

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 FRAMINGâNONSTRUCTURAL 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