PRODUCT CODE: **SJ3-1254**
PUBLICATION DATE: **JULY 2019**

# SUBMITTAL SHEET

Studco HEDA 12” Wide with 3” Flange 50ksi G60 Structural Stud (54mils)

## PRODUCT INFORMATION

| | |
|---|---|
| Description | **Studco HEDA 12” Wide with 3” Flange 50ksi G60 Structural Stud (54mils)** |
| Code | **SJ3-1254** |
| Category | **Studco Structural Stud 3” Flange** |

## GEOMETRIC PROPERTIES

| | |
|---|---|
| Web Depth (in) | **12”** |
| Flange Width (b) | **3”** |
| Stiffening Lip | **3/4”** |
| Weight (lb/ft) | **3.77** |
| Punchout Width | **1-1/2”** |
| Punchout Height | **2-1/4”** |
| Gauge | **16 GA** |
| Design Thickness | **0.0566** |
| Thickness - Mils | **54** |
| Yield Strength FY (KSI) | **50** |
| Coating | **G60** |

## GROSS SECTION PROPERTIES

| | |
|---|---|
| Cross Section Area **A** | **1.108 in.2** |
| Moment of inertia **Ixx** | **22.842 in.4** |
| Section modulus **Sxx** | **3.807 in.3** |
| Radius of gyration **Rxx** | **4.540 in.** |
| Moment of inertia **Iyy** | **1.292 in.4** |
| Radius of gyration **Ryy** | **1.080 in.** |

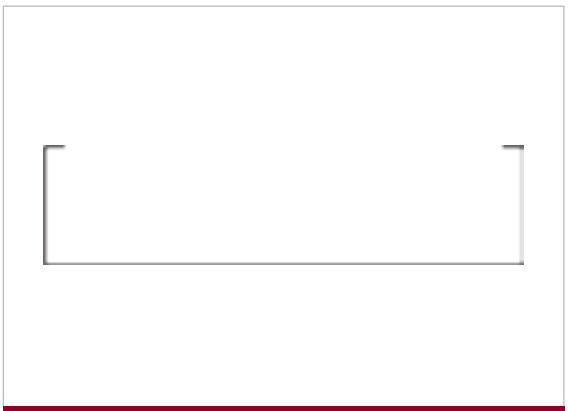
## EFFECTIVE SECTION PROPERTIES

| | |
|---|---|
| Moment of inertia for deflection **Ixx** | **22.564 in4** |
| Section modulus **Sxx** | **2.692 in3** |
| Allowable bending moment **Ma-L** | **80.590 in.-k** |
| Allowable moment based on distortional buckling **Ma-D** | **73.550 in-k** |
| Critical value of rotational stiffness **KfC** | **73.2** |
| Allowable strong axis shear away from punchouts **Vag** | **1377 lbs** |
| Allowable strong axis shear at punchouts **VaNet** | **1377 lbs** |
| Effective moment of inertia **Iyy** | **0.903 in.4** |
| Effective Section modulus **Syy** | **0.490 in.6** |
| Allowable moment at yield **Ma-yy** | **14.68 in.** |
| Allowable weak axis shear **Vay** | **5767 lbs.** |

## TORSION PROPERTIES

| | |
|---|---|
| St Venant torsion constant **J1000** | **1.183 in.4** |
| Warping constant **Cw** | **38.107 in.6** |
| Distance from shear center to neutral axis **Xo** | **-1.965 in.** |
| Distance from shear center to mid-plane of web **m** | **1.245 in.** |
| Polar radius of gyration **Ro** | **5.064 in.** |
| Beta **β** | **0.849 β** |
| Max. unbraced length **Lu** | **62.200 in.** |

**SJ3-1254**



**SJ3-1254 PROFILE**

## SUSTAINABILITY & LEED

LEED credit MR 2.1 (1 point)
LEED credit MR 2.2 (1 point)
LEED credit MR 4.1 (1 point)
LEED credit MR 4.2 (1 point)
LEED credit MR 5.1 (1 point)
LEED credit MR 5.2 (1 point)
ISO14001:2015 certified company
Total recycled content 32.7%
(Content: post consumer 25.5%, pre consumer 6.8%)

Suitable for UL Assemblies U419, U465 & U411,

## ASTM INFORMATION

All products manufactured by STUDCO BUILDING SYSTEMS are certified to meet or exceed all applicable American Society for Testing & Materials standards as listed below. STUDCO BUILDING SYSTEMS is also accredited to ISO9001- an internationally recognized standard.

**Material Specifications (ASTM)**

• All STUDCO Structural framing members conform to A1003 - A1003 is the Standard specification for steel sheet, Carbon, Metallic- and Nonmetallic - Coated for Cold Formed Framing Members Coating Specification (ASTM) .

• All STUDCO Structural framing members conform to C955 - C955 Standard specification for load-bearing (transverse and axial) steel studs, runners (tracks), and bracing or bridging for screw application of gypsum panel products and metal plaster bases.

**Product Specifications (ASTM)**

• All STUDCO Structural framing members conform to C955 - C955 Standard specification for load-bearing (transverse and axial) steel studs, runners (tracks), and bracing or bridging for screw application of gypsum panel products and metal plaster bases.

All Structural products have a G-60 minimum weight conforming to ASTM Specification A1003 or have a protective coating with the industry standard requirements of ASTM C645. A G90 Coating is available upon request.

All Structural Studs Conform to U420 Standards for Fire Rated Assemblies.

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