PRODUCT CODE: **SJ3-51297-G90**
PUBLICATION DATE: **JULY 2019**

# SUBMITTAL SHEET

Studco HEDA 5-1/2” Wide with 3” Flange 50ksi G90 Structural Stud (97mils)

## PRODUCT INFORMATION

| | |
|---|---|
| Description | **Studco HEDA 5-1/2” Wide with 3” Flange 50ksi G90 Structural Stud (97mils)** |
| Code | **SJ3-51297-G90** |
| Category | **Studco Structural Stud 3” Flange** |

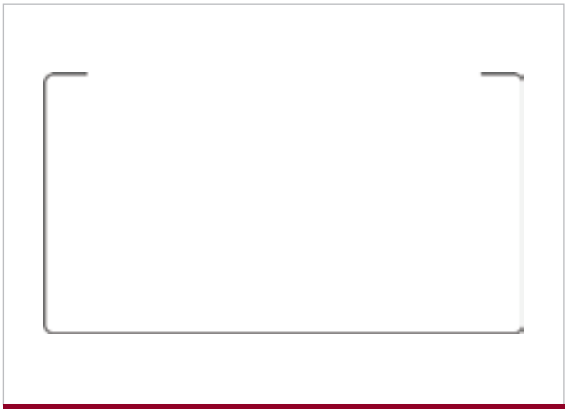
SJ3-51297-G90

## GEOMETRIC PROPERTIES

| | |
|---|---|
| Web Depth (in) | **5-1/2”** |
| Flange Width (b) | **3”** |
| Stiffening Lip | **3/4”** |
| Weight (lb/ft) | **4.41** |
| Punchout Width | **1-1/2”** |
| Punchout Height | **2-1/4”** |
| Gauge | **12 GA** |
| Design Thickness | **0.1017** |
| Thickness - Mils | **97** |
| Yield Strength FY (KSI) | **50** |
| Coating | **G90** |

## GROSS SECTION PROPERTIES

| | |
|---|---|
| Cross Section Area **A** | **1.296 in.2** |
| Moment of inertia **Ixx** | **6.332 in.4** |
| Section modulus **Sxx** | **2.303 in.3** |
| Radius of gyration **Rxx** | **2.210 in.** |
| Moment of inertia **Iyy** | **1.687 in.4** |
| Radius of gyration **Ryy** | **1.141 in.** |



SJ3-51297-G90 PROFILE

## EFFECTIVE SECTION PROPERTIES

| | |
|---|---|
| Moment of inertia for deflection **Ixx** | **6.332 in4** |
| Section modulus **Sxx** | **2.238 in3** |
| Allowable bending moment **Ma-L** | **73.950 in.-k** |
| Allowable moment based on distortional buckling **Ma-D** | **72.080 in-k** |
| Critical value of rotational stiffness **KfC** | **330.1** |
| Allowable strong axis shear away from punchouts **Vag** | **9518 lbs** |
| Allowable strong axis shear at punchouts **VaNet** | **3026 lbs** |
| Effective moment of inertia **Iyy** | **1.687 in.4** |
| Effective Section modulus **Syy** | **0.876 in.6** |
| Allowable moment at yield **Ma-yy** | **26.21 in.** |
| Allowable weak axis shear **Vay** | **9502 lbs.** |

## TORSION PROPERTIES

| | |
|---|---|
| St Venant torsion constant **J1000** | **4.468 in.4** |
| Warping constant **Cw** | **12.922 in.6** |
| Distance from shear center to neutral axis **Xo** | **-2.587 in.** |
| Distance from shear center to mid-plane of web **m** | **1.536 in.** |
| Polar radius of gyration **Ro** | **3.589 in.** |
| Beta **β** | **0.480 β** |
| Max. unbraced length **Lu** | **62.900 in.** |

## 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.



**For Sales Inquiries, please contact Studco Building Systems on 800.675.8023**
Studco Building Systems US LLC 1700 Boulter Industrial Parkway Webster NY 14580 USA www.studcosystems.com