PRODUCT CODE: **SJ3.5-654-G90**
PUBLICATION DATE: **JULY 2019**

SUBMITTAL SHEET

Studco HEDA 6” Wide with 3-1/2” Flange 50ksi G90 Structural Stud (54mils)

PRODUCT INFORMATION

Description	**Studco HEDA 6” Wide with 3-1/2” Flange 50ksi G90 Structural Stud (54mils)**
Code	**SJ3.5-654-G90**
Category	**Studco Structural Stud 3-1/2” Flange**

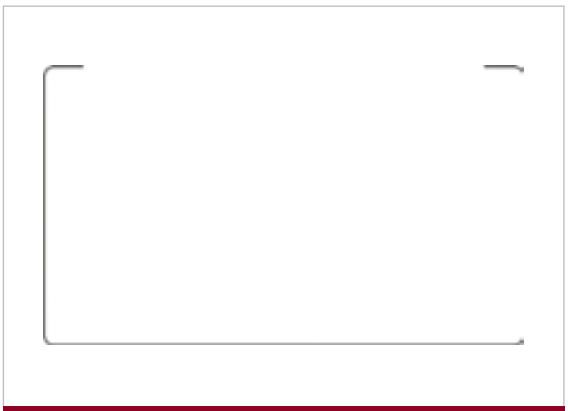
SJ3.5-654-G90

GEOMETRIC PROPERTIES

Web Depth (in)	**6”**
Flange Width (b)	**3-1/2”**
Stiffening Lip	**7/8”**
Weight (lb/ft)	**2.81**
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	**G90**

GROSS SECTION PROPERTIES

Cross Section Area **A**	**0.825 in.2**
Moment of inertia **Ixx**	**5.022 in.4**
Section modulus **Sxx**	**1.674 in.3**
Radius of gyration **Rxx**	**2.467 in.**
Moment of inertia **Iyy**	**1.491 in.4**
Radius of gyration **Ryy**	**1.344 in.**



SJ3.5-654-G90 PROFILE

EFFECTIVE SECTION PROPERTIES

Moment of inertia for deflection **Ixx**	**4.721 in4**
Section modulus **Sxx**	**1.335 in3**
Allowable bending moment **Ma-L**	**39.970 in.-k**
Allowable moment based on distortional buckling **Ma-D**	**36.560 in-k**
Critical value of rotational stiffness **KfC**	**145.0**
Allowable strong axis shear away from punchouts **Vag**	**2823 lbs**
Allowable strong axis shear at punchouts **VaNet**	**1947 lbs**
Effective moment of inertia **Iyy**	**1.239 in.4**
Effective Section modulus **Syy**	**0.603 in.6**
Allowable moment at yield **Ma-yy**	**18.04 in.**
Allowable weak axis shear **Vay**	**6743 lbs.**

TORSION PROPERTIES

St Venant torsion constant **J1000**	**0.881 in.4**
Warping constant **Cw**	**12.942 in.6**
Distance from shear center to neutral axis **Xo**	**-3.037 in.**
Distance from shear center to mid-plane of web **m**	**1.787 in.**
Polar radius of gyration **Ro**	**4.137 in.**
Beta **β**	**0.461 β**
Max. unbraced length **Lu**	**74.400 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.

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