



STEEL FRAMING LLC

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GREEN Benefits & Recycled Content

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Project:

MRI Steel Framing is committed to supplying quality products that contribute to developing greener building projects as well as sustainability and environmental management.

MRI Steel Framing has an Environmental Product Declaration (EPD), Number SCS-EPD-08959, covering our Cold-Formed Steel Framing Products, which conforms to ISO 14025, 14040, 14044, and ISO 21930. This EPD is a Product Specific Type III and has a Cradle to Gate scope. More specifically, this Type III EPD has been externally reviewed following ISO 14071 and externally verified, and as such, is eligible to contribute 150% of a product for the purposes of LEED® credits under the LEED® v4.1 standard.

The MRI Steel Framing Environmental Product Declaration (EPD) can help your building project qualify for the following LEED® v4.1 for BD+C points:

MATERIALS AND RESOURCES CREDIT (MR)

- Environmental Product Declarations - Up to 2 Points
- Sourcing of Raw Materials - Up to 2 Points
- Material Ingredients - Up to 2 Points
- Construction and Demolition Waste Management - Up to 2 Points

INDOOR ENVIRONMENTAL QUALITY CREDIT (EQ)

- Low-Emitting Materials - Up to 3 Points
- Construction Indoor Air Quality Management Plan - Up to 1 Point
- Indoor Air Quality Assessment - Up to 2 Points

MRI Steel Framing products and accessories are manufactured from steel coil (100% by weight) containing 19.8% post-consumer recycled content and 14.4% post-industrial/pre-consumer recycled content for a total of 34.2% recycled content. These calculations are based upon information provided by the Steel Recycling Institute on minimum BOF (Basic Oxygen Furnace) steel recycled content.

In addition to the above mentioned EPD and LEED® information, MRI Steel Framing also has a Health Product Declaration (HPD) with a Unique Identifier Number of 27459 covering our full line of Interior Framing, Structural Framing, Slotted Deflection Track and Accessories; MasterSpec 05.40.00 and 09.22.16.

Product Category: 09.22.16 - Non-Structural Metal Framing

Product Name: 162SET125-27 Smart Track 20 EQ

Available Finish: G40, G60

*Other standard coatings referenced in ASTM A1003

Web Depth: 1-5/8 in

Flange Width: 1-1/4 in

Design Thickness: 0.0283 in

Gauge: 27 mils or 20 EQ

Yield stress, Fy: 43 ksi

Weight: 0.400 lb/ft

Gross Section Properties

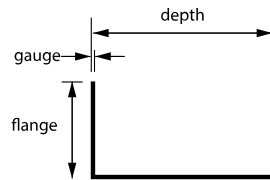
Cross sectional area (A)	0.117 in ²
Moment of inertia (I _{xx})	0.063 in ⁴
Section Modulus (S _{xx})	0.072 in ³
Radius of gyration (R _x)	0.735 in
Gross moment of inertia (I _{yy})	0.020 in ⁴
Gross Radius of gyration (R _y)	0.410 in

Effective Section Properties

Moment of inertia for deflection (I _{xx})	0.049 in ⁴
Section modulus (S _{xx})	0.042 in ³
Allowable bending moment (M _a)	1.08 In-k
Allowable strong axis shear away from punch-out (V _a)	705 lb

Torsional Properties

St. Venant torsion constant (J x 1000)	0.031 in ⁴
Warping constant (C _w)	0.010 in ⁶
Distance from shear center to neutral axis (X _o)	-0.872 in
Distance from shear center to mid-plane of web (m)	0.501 in
Radii of gyration (R _o)	1.211 in
Torsional flexural constant (β)	0.482



- Calculated properties are based on AISI S100-16/S2-20, North American Specification for Design of Cold-Formed Steel Structural Members and meets the requirements of the IBC 2021 Building Code.
- The centerline bend radius is based on inside corner radii shown in thickness chart.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties are based on full-unreduced cross section of the studs, away from punchouts.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold-work of forming.

Additional Information

MRI Steel Framing, LLC is an SFIA member. MRI acts in accordance with the product and quality standards required by the SFIA program.

MRI meets or exceeds ASTM C645, A653, and A1003.

Current LEED credits available upon request