

PRODUCT SPEC DATA

# TOPHAT™ US175LS SYSTEM



**TOPHAT**  
enhanced engineering

## PRODUCT DESCRIPTION

**Combining the Ultra Seam US175LS Standing Seam Panel with the TopHat Subframe results in an easy-to-install, quality retrofit roof system that will improve the appearance of any building.**

The combined energy efficiency will result in significant cost savings for the owner. This system is recommended on projects that do not require rigorous engineering design. The 1¾" tall, snap-lock US175LS standing seam panel snaps together for ease of installation.

## APPLICATION

The TopHat Subframe is an economical and efficient way to replace an existing metal roof. By putting a new and improved roof right over your existing roof structure, you achieve lower labor costs and minimal business interruption. The TopHat Subframe member is attached directly to the existing purlin (or to the deflection limiter between existing purlins). The 1¾" tall US175LS standing seam panel is then attached directly to the TopHat Subframe.

## SUBSTRATE

- The TopHat Subframe is roll formed from premium-quality 16 ga. G60 Galvanized steel manufactured per ASTM A653/A653M or 1011/A1011M and having a minimum yield strength of 33 ksi.
- 14 ga. Galvanized, G90 Galvanized, and high-strength steel are available upon request.

## SIZES AND LENGTHS

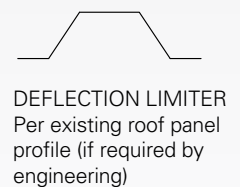
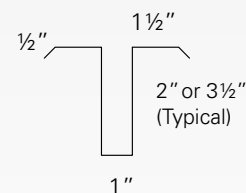
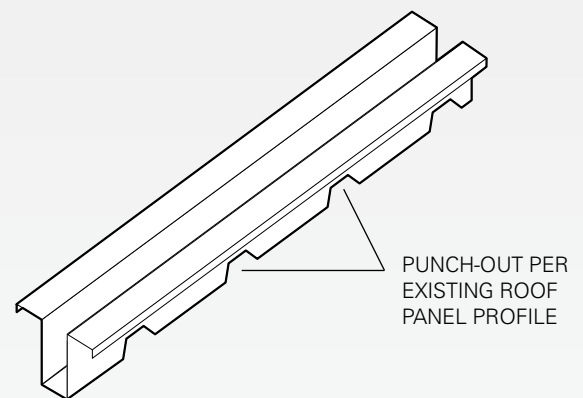
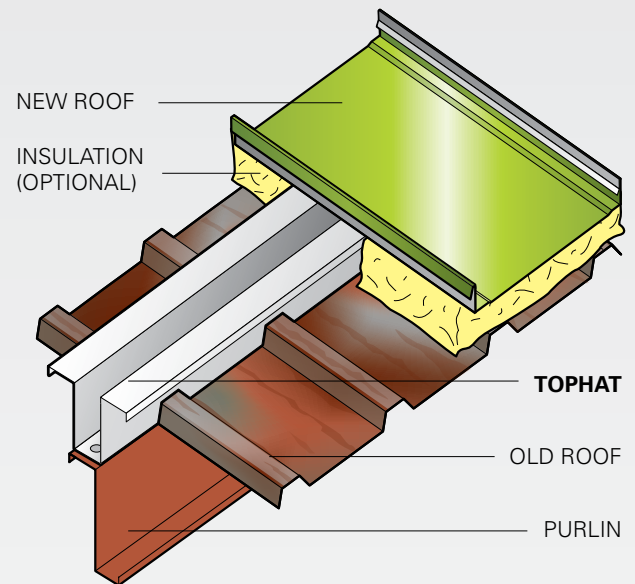
- The TopHat Subframe is available as 2" and 3½" tall. *Other heights may be available upon request.*
- TopHat can be roll formed to any length required, although 20' and 10' lengths are standard.

## TOPHAT PROFILES

TopHat can be installed over virtually any existing metal roof. Standard punch-outs accommodate the following existing roofs: R-Panel, UltraDek, 7.2 Rib, 7.0 Rib, a variety of standing seam panels, and many more.

## WARRANTY

A 20-year substrate warranty covering the galvanized material is available at no additional cost. *The warranty is issued on a per project basis upon request.*



## ULTRA SEAM US175LS INFORMATION

### SUBSTRATE

Choose between prime-quality Structural Grade 50 Galvalume steel manufactured per ASTM A-792 or aluminum conforming with Aluminum Association specification sheet 3003-H14 or 3105 H-14 and manufactured per ASTM B-209. Both are coated with 70% Kynar 500/Hylar 5000 (polyvinylidene fluoride resin) fluorocarbon, applied over an appropriate primer. An exterior off-white or gray backer coat is applied to the reverse side for additional protection. *Other substrates may be available upon request.*

### GAUGES

The US175LS is available in 22 ga. or 24 ga. *Other gauges or thicknesses may be available upon request.*

### FINISH

- 70% Kynar 500/Hylar 5000 fluorocarbon coating of 1.0 +/- 0.1 mil total dry film thickness including primer. The reverse side is coated with a primer and off-white or gray backer with a total of 0.5 mil dry film for additional protection. *Other finishes may be available upon request.*
- A smooth, dull matte, and low-to-medium gloss finish is standard.

### CLIP

18 ga. UL-Rated clip with two fasteners to the structural substrate

### SIZES AND LENGTHS

- Available widths: 12" or 16"
- Available length: 5' - 40' is standard. The US175LS panel can be roll formed on your jobsite (at an additional cost) for continuous length panels from eave to ridge.

### COOL METAL ROOF COLORS

There are a variety of standard colors available. *Please contact TopHat Framing for a color chart.*

### WARRANTY

A 35-year finish warranty covering color, fade, chalking, and film integrity and 25-year substrate warranty covering the Galvalume substrate are available at no additional cost. *The warranties are issued on a per project basis upon request.*



**ENGINEERING**

The TopHat Subframe system requires specific engineering in order to meet the design criteria for your building. *TopHat Framing Systems can offer an engineering and shop drawing package for your project upon request.*

*Always consult with a professional engineer registered in the state of your project before you start any project.*

**WIND UPLIFT ALLOWABLE UNIFORM LOADS FOR TOPHAT - US175LS SYSTEM**

Panel width	Panel gauge	Roof panel span (loads are in psf)								
		TopHat directly over existing purlins								
		1'-0"	1'-6"*	2'-0"*	2'-6"	3'-0"*	3'-6"*	4'-0"*	4'-6"*	5'-0"
16"	24	28.6	27.6	26.7	25.7	24.7	23.7	22.8	21.8	20.8
12"	22	72.8	71.0	69.2	67.3	65.5	63.7	61.9	60.1	58.2*

**NOTES**

1. Loads are based on ASTM E 1592 testing and based on three or more equal spans.
2. Allowable loads include a 2.0 Factor of Safety in accordance with AISI '01.
3. No load increase for wind is included.
4. All loads are in psf and based on 33 ksi (min) TopHat and 50 ksi US175 Panel.
5. Spans marked with an asterisk (\*) are interpolated.
6. TopHat directly over existing purlins does not affect the uplift capacity of the top roof panel.
7. The 24 ga. 16" panel was tested with AMSI 24 ga. Snap Lock Clips.
8. The 22 ga. 12" panel was tested with AMSI 18 ga. Snap Lock Uplift Clips, No. 178-SLUL-18-G.
9. Visit [www.tophatframing.com](http://www.tophatframing.com) to download complete test reports.
10. These Load Tables are intended as a guide only. Always refer to the complete test reports when designing a roof.
11. Always consult with a professional engineer registered in the state of your project.



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**TopHat Framing Systems LLC**

OHIO 8059 Crile Road, Painesville, OH 44077 TEL 440-352-1841 TOLL-FREE 888-459-0421 FAX 440-352-7048  
 TEXAS 8660 Lambright Street, Houston, TX 77075 TEL 713-991-2246 TOLL-FREE 866-361-4141 FAX 713-991-4747

[www.tophatframing.com](http://www.tophatframing.com)

