

TL Fasteners

PRODUCT DESCRIPTION

The TRUFAST® TL Fastener is designed to mechanically attach rigid insulation board and single-ply membrane to structural cement wood fiber, gypsum and lightweight insulating concrete roof decks. It features a high thread profile with a tapered root diameter and sharp point. Its unique design allows it to penetrate the roof deck and progressively compact the base material, creating a stronger hold in weak material. The TL Fastener is used in conjunction with the TRUFAST 2" TL Seam Plate and 3" TL Insulation Plate.

APPROPRIATE ACCESSORIES

Use with TRUFAST® TLP-3 Insulation Plate and TLP-2 Seam Plate.

CODE APPROVALS & LISTINGS

FM Global 4



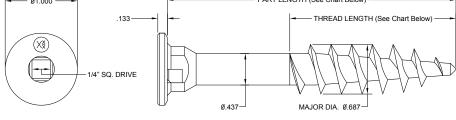
Miami-Dade County



State of Florida - FL#: 4500

PRODUCT SPECIFICATIONS

Fastener Body: Reinforced Nylon Manufacturing Location: Hatfield, PA PART LENGTH (See Chart Below) − Ø1.000 .133 THREAD LENGTH (See Chart Below) (X)



PRODUCT SELECTION

Part No.	Pa	rt Length	Threac	l Length	Pkg. Qty.	Pkg. Wt.	Pallet Qty.
TL-2000	2"	50.8 mm	1.447"	36.8 mm	500/Carton	12 lbs.	27,000
TL-2500	2-1/2"	63.5 mm	1.947"	49.5 mm	500/Carton	13 lbs.	27,000
TL-3000	3″	76.2 mm	2.300"	58.4 mm	500/Carton	15 lbs.	27,000
TL-3500	3-1/2"	88.9 mm	2.300"	58.4 mm	500/Carton	16 lbs.	27,000
TL-4000	4"	101.6 mm	2.300"	58.4 mm	500/Carton	19 lbs.	27,000
TL-4500	4-1/2"	114.3 mm	2.300"	58.4 mm	500/Carton	21 lbs.	27,000
TL-5000	5"	127.0 mm	2.300"	58.4 mm	500/Carton	23 lbs.	27,000
TL-5500	5-1/2"	139.7 mm	2.300"	58.4 mm	500/Carton	25 lbs.	27,000
TL-6000	6"	152.4 mm	2.300"	58.4 mm	500/Carton	26 lbs.	27,000
TL-6500	6-1/2"	165.1 mm	2.300"	58.4 mm	500/Carton	28 lbs.	27,000
TL-7000	7"	177.8 mm	2.300"	58.4 mm	250/Carton	15 lbs.	13,500
TL-7500	7-1/2"	190.5 mm	2.300"	58.4 mm	250/Carton	16 lbs.	13,500
TL-8000	8″	203.2 mm	2.300"	58.4 mm	250/Carton	17 lbs.	13,500
TL-8500	8-1/2"	215.9 mm	2.300"	58.4 mm	250/Carton	19 lbs.	13,500
TL-9000	9″	228.6 mm	2.300"	58.4 mm	250/Carton	20 lbs.	13,500
TL-9500	9-1/2"	241.3 mm	2.300"	58.4 mm	250/Carton	21 lbs.	13,500
TL-10000	10"	254.0 mm	2.300"	58.4 mm	250/Carton	22 lbs.	13,500
TL-11000	11"	279.4 mm	2.300"	58.4 mm	250/Carton	24 lbs.	13,500
TL-12000	12″	304.8 mm	2.300"	58.4 mm	250/Carton	26 lbs.	13,500
TL-13000	13"	330.2 mm	2.300"	58.4 mm	250/Carton	28 lbs.	13,500
TL-14000	14"	355.6 mm	2.300"	58.4 mm	250/Carton	30 lbs.	13,500



Enlarged to show detail.



PERFORMANCE DATA

Property	Standard	Average Ultimate Value
Shear Strength	NASM 1312-20	875 lbf. (thread zone)

Average Ultimate Pullout Values

Subsrate	Pre-Drill Dia.*	Min. Embedment Depth	Pullout (lbf.)	
T . TM		1-1/2"	280	
Tectum™	N/A	2"	440	
		2-1/2"	595	
3" Insulrock	5/16"	2-1/2"	365	
Poured Gypsum	3/8″	2"	540	

^{*} A pre-drilled 5/8" clearance hole is necessary only when plywood or other rigid materials are fastened to a roof deck. A plate in not required in this application.

INSTALLATION GUIDELINES

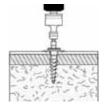
Using the $\frac{1}{4}$ " drive bit provided and an electric impact tool that provides a high torque and relatively low rpm, install the fastener into the deck. A heavy-duty variable speed screw gun operated at a low speed is also acceptable. Pre-drilling is normally not required for installation into cement wood fiber decks such as Tectum®. Decks such as Insulrock may require a 5/16" pre-drilled hole. Gypsum and lightweight insulating concreted decks should be pre-drilled using a 3/8" or 7/16" carbide tipped bit. Larger carbide tipped bits up to $\frac{1}{2}$ " dia. can be used in denser materials. The drill bit size to be used should be determined during the job site test.



If pre-drilling is required, drill a hole into the base material to a depth ½" greater than the embedment required.



Place the TRUFAST TL Plate on the insulation (TL 3" Plate) or seam (TL 2" Plate).



Drive the TL Fastener through the plate into the base material until the head of the fastener is properly seated in the plate. The plate should be seated securely against the insulation or membrane. Do not overdrive.

DISCLAIMER

The performance specifications published in this TRUFAST product literature are based on controlled laboratory tests and are intended as a guideline only. They are not guaranteed in any way by the ALTENLOH, BRINCK & CO. U.S., INC. (the manufacturer), since building design, engineering, and construction, including workmanship and materials, are beyond the control of the manufacturer. The manufacturer recommends that pull-out tests be conducted to verify the substrate provides adequate pull-out values.

