

PRODUCT DESCRIPTION

The TRUFAST® Concrete Spike Fastener is a one-piece, vibration-resistant anchor designed to fasten insulation, single-ply roof membrane, wood, and steel to structural concrete roof decks. Featuring an "S" shaped configuration at the working end of the fastener to create an expansion mechanism, it provides a fast, reliable fastening solution for structural concrete roof applications.

APPROPRIATE ACCESSORIES

Use with TRUFAST® MP-2000, MPB-2000, MPB-2400 Seam Plates; MP-3000 and MPR-3000 Insulation Plates; and BB-18F and BB-18R Batten Bar.

CODE APPROVALS & LISTINGS

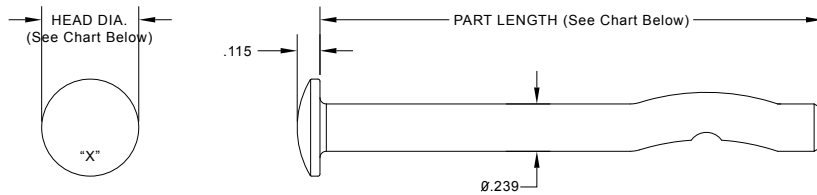


MATERIAL SPECIFICATIONS

Material: AISI 1038 Carbon Steel
Coating: Tru-Kote™ Epoxy E-Coat

Manufacturing Location: Bryan, OH USA
LEED® Eligible Recycled Content: 20%

PRODUCT SPECIFICATIONS



PRODUCT SELECTION

Part No.	Part Length		Head Dia.		Pkg. Qty.	Pkg. Wt.	Pallet Qty.
TS250-1250	1-1/4"	31.8 mm	.500 mm	12.7 mm	500/Bucket	11 lbs.	30,000
TS250-1500	1-1/2"	38.1 mm	.500 mm	12.7 mm	500/Bucket	12.5 lbs.	30,000
TS250-2000	2"	50.8 mm	.500 mm	12.7 mm	500/Bucket	16.5 lbs.	30,000
TS250-2500	2-1/2"	63.5 mm	.500 mm	12.7 mm	500/Bucket	20 lbs.	30,000
TS250-3000	3"	76.2 mm	.500 mm	12.7 mm	500/Bucket	23.5 lbs.	30,000
TS250-3500	3-1/2"	88.9 mm	.500 mm	12.7 mm	500/Bucket	27 lbs.	30,000
TS250-4000	4"	101.6 mm	.500 mm	12.7 mm	500/Bucket	30.5 lbs.	30,000
TS250-4500	4-1/2"	114.3 mm	.500 mm	12.7 mm	500/Bucket	34 lbs.	30,000
TS250-5000	5"	127.0 mm	.500 mm	12.7 mm	500/Bucket	37.5 lbs.	30,000
TS250-5500	5-1/2"	139.7 mm	.500 mm	12.7 mm	500/Bucket	41 lbs.	30,000
TS250-6000	6"	152.4 mm	.500 mm	12.7 mm	250/Bucket	23 lbs.	15,000
TS250-6500	6-1/2"	165.1 mm	.450 mm	11.4 mm	250/Bucket	24.5 lbs.	15,000
TS250-7000	7"	177.8 mm	.450 mm	11.4 mm	250/Bucket	26.5 lbs.	15,000
TS250-7500	7-1/2"	190.5 mm	.450 mm	11.4 mm	250/Bucket	28 lbs.	15,000
TS250-8000	8"	203.2 mm	.450 mm	11.4 mm	250/Bucket	30 lbs.	15,000
TS250-9000	9"	228.6 mm	.450 mm	11.4 mm	250/Bucket	33.5 lbs.	15,000
TS250-10000	10"	254 mm	.450 mm	11.4 mm	250/Bucket	37 lbs.	15,000
TS250-11000	11"	279.4 mm	.450 mm	11.4 mm	100/Bucket	16 lbs.	6,000
TS250-12000	12"	304.8 mm	.450 mm	11.4 mm	100/Bucket	17.5 lbs.	6,000
TS250-13000	13"	330.2 mm	.450 mm	11.4 mm	100/Carton	19 lbs.	3,000
TS250-14000	14"	355.6 mm	.450 mm	11.4 mm	100/Carton	20.5 lbs.	3,000
TS250-15000	15"	381.0 mm	.450 mm	11.4 mm	100/Carton	22 lbs.	3,000
TS250-16000	16"	406.4 mm	.450 mm	11.4 mm	100/Carton	23 lbs.	3,000



Enlarged to show detail.

PERFORMANCE DATA

Average Ultimate Load Capacities in Normal-Weight Concrete*

	Minimum Concrete Compressive Strength							
	2,000 psi		3,000 psi		4,000 psi		5,000 psi	
Min. Embedment Depth	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"
Tensile Strength	620 lbs.	830 lbs.	775 lbs.	1,100 lbs.	835 lbs.	1,210 lbs.	885 lbs.	1,320 lbs.
Shear Strength	1,585 lbs.	1,815 lbs.	1,965 lbs.	2,020 lbs.	2,160 lbs.	2,220 lbs.	2,360 lbs.	2,585 lbs.

* Tabulated load values are for fasteners installed in concrete. Concrete compressive strength must be at the specified minimum at the time of installation. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working load. Consideration of safety factor of 10 or higher may be necessary depending upon the application, such as life safety or overhead.

Average Ultimate Load Capacities in Structural Lightweight Concrete*

	Minimum Concrete Compressive Strength		
	3,000 psi	4,000 psi	5,000 psi
Min. Embedment Depth	1-1/4"	1-1/4"	1-1/4"
Tensile Strength	480 lbs.	440 lbs.	400 lbs.
Shear Strength	1,720 lbs.	1,720 lbs.	1,720 lbs.

* Tabulated load values are for fasteners installed in concrete. Concrete compressive strength must be at the specified minimum at the time of installation. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working load. Consideration of safety factor of 10 or higher may be necessary depending upon the application, such as life safety or overhead.

Average Ultimate and Allowable Load Capacities in Grouted Concrete Masonry*

	Normal-Weight CMU, f'm ≥ 1,500 psi			
	Ultimate Load		Allowable Load	
	1"	1-1/4"	1"	1-1/4"
Min. Embedment Depth	1"	1-1/4"	1"	1-1/4"
Tensile Strength	670 lbs.	800 lbs.	135 lbs.	160 lbs.
Shear Strength	1,840 lbs.	2,100 lbs.	370 lbs.	240 lbs.

* Tabulated load values are for fasteners installed in minimum 6" wide, minimum Grad N, Type II, lightweight, medium-weight or normal-weight concrete masonry units conforming to ASTM C 90. Mortar must be minimum Type N. Masonry cells may be grouted. Masonry compressive strength must be at the specified minimum at the time of installation (f'm ≥ 1,500 psi). Allowable load capacities listed are calculated using an applied safety factor of 5.0. Consideration of safety factors of 10 or higher may be necessary depending upon the application, such as life safety and in sustained tensile loading applications. Linear interpolation may be used to determine allowable load capacities for intermediate embedments. The tabulated values are for fasteners installed at a minimum of 16 fastener diameters on center.

INSTALLATION GUIDELINES

ANSI Drill Bit Size: 1/4" dia. **Fixture Clearance Hole:** 5/16" dia.

Pre-drill a 1/4" diameter hole using a drill bit that meets the requirement of ANSI Standard B212.15. The hole must be a minimum of 1/2" deeper than the fastener embedment. The fastener is installed with a hammer to a minimum embedment of 1" until the head of the fastener is properly seated in the plate or bar. Care should be taken to not damage the insulation or membrane by overdriving the fastener.

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.



ALTENLOH, BRINCK & CO. U.S., INC.

02105 Williams County Rd. 12-C • Bryan, OH 43506
 Phone: 419-636-6715 or 800-443-9602 • Fax: 419-636-1784
 Email: sales@trufast.com • www.trufast.com

TRUFAST® Concrete Spike Fasteners are manufactured by the ALTENLOH, BRINCK & CO. U.S., INC, and are sold through leading roofing and building material distributors across the U.S. and Canada.