



PLYFAST® #12 FASTENER

Description: PLYFAST® #12 Fasteners are formed from corrosion resistant steel and are designed to secure insulation to standard steel (18 ga.–24 ga.) and wood decks. It is available in lengths from 1-5/8-in. to 8-in. PlyFast #12 Fastener is also Factory Mutual approved. Head Style: Two head styles available - #3 deep recess Phillips drive or 1/4" Hex washer head.

Features & Benefits:

- Choice of #3 Phillips or 1/4" Hex head style.
- Heavy shank and thread diameters than most "standard" roofing fasteners for high pullout resistance.
- FM approved.

Corrosion Coating: Corrosion resistant coating exhibits less than 15% red rust which meets or exceeds FM 4470 corrosion standards and withstands 30 cycles of the Kesternich DIN 50018 SFW 2.0 test.

Application: PlyFast #12 Fasteners must penetrate steel decks a minimum of 3/4-in., wood plank decks a minimum of 1-in. and 1/2-in. through the underside for plywood decks. Using a screw gun, drive the fastener until a slight depression is seen around the plate, or with very rigid insulation boards, watch for the plate to dimple. **Note: Care must be taken not to overdrive the fastener and fracture the insulation facer.** Fastener must be tight enough so that the plate does not turn. For steel decks, Factory Mutual requires that the fastener penetrate the deck at the top flute.

Plate: #3 Phillips head uses PlyFast® 3" Metal Stress Plate (sold separately), 1/4" Hex head uses PlyFast® Recessed Metal Plate (sold separately).

Tools: For best installation result, use a variable speed 0–2500 RPM screw gun. Always use appropriate drive bit for fastener head. To speed installation, appropriate fastener parts are available pre-assembled or can be used with matching insulation plates, belted systems, or auto-feed installation tools. See PlyFast® Fastener Information Guide for specific details.

Approvals: PlyFast® #12 Fastener is listed or approved with Factory Mutual (FM). Contact U.S. Ply, Inc. for specific/applicable codes.

Fastening Pattern: Consult U.S. Ply Technical Department and/or Factory Mutual requirements for recommended patterns in normal, exposed, and high wind velocity areas.

Product Data: PLYFAST® #12 Fastener Phillips (typical)

Property	#12 Fastener D	#12 Fastener T
Head Type	#3 Phillips	#3 Phillips
Head Height	.118"	.110"
Head Dia. Max	.448"	.438"
Thread Major Dia.	.222"	.214"
Shank Dia.	.167"	.160"
Tensile Strength (lbs ult)	2410	2500
Shear Strength	1815	1900
Corrosion Resistance	< 15% Red Rust after 30 cycles	< 15% Red Rust after 30 cycles

Product Data: PLYFAST® #12 Fastener Hex (typical)

Property	#12 Fastener Hex D	#12 Fastener Hex T
Head Type	1/4" Hex	1/4" Hex
Head Height	.118"	.128"
Head Dia. Max	.448"	.385"
Thread Major Dia.	.222"	.214"
Shank Dia.	.167"	.160"
Tensile Strength (lbs ult)	2410	2500
Shear Strength	1815	1900
Corrosion Resistance	< 15% Red Rust after 30 cycles	< 15% Red Rust after 30 cycles



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Average Ultimate Pullout Values in Corrugated Steel Deck Substrates

Fastener	Thickness	24 ga.	22 ga.		20 ga.			18 ga.			
	Yield Strength	36.5 ksi	33.0 ksi	80.0 ksi	102.0 ksi	33.0 ksi	80.0 ksi	102.0 ksi	33.0 ksi	80.0 ksi	102.0 ksi
#12 Fastener D	Pullout (lbf)		403	539			695			787	
#12 Fastener T	Pullout (lbf)	230	285	410	465	355	505	580	540	715	800

Average Ultimate Pullout Values in Wood Deck Substrates

Fastener	Thickness	Plywood			OSB		
	Yield Strength	15/32"	19/32"	23/32"	15/32"	19/32"	23/32"
#12 Fastener D	Pullout (lbf)	419	409	544	216	420	248
#12 Fastener T	Pullout (lbf)	365	475	720	300	325	440

Product Data: PLYFAST® Ordering Information (typical):

Product	Screw Length*	Pieces/Box	Weight/Box # 12 - D	Pieces/Box	Weight/Box # 12 - T
#12 Fastener-D #12 Fastener-T	1-5/8"	1000	13 lbs	1000	11.8 lbs
#12 Fastener-D #12 Fastener-T	2-1/4"	1000	17 lbs	1000	16.2 lbs
#12 Fastener-D #12 Fastener-T	2-7/8"	1000	21 lbs	1000	19.7 lbs
#12 Fastener-D #12 Fastener-T	3-1/4"	1000	23 lbs	1000	21.5 lbs
#12 Fastener-D #12 Fastener-T	3-3/4"	1000	26 lbs	1000	24.6 lbs
#12 Fastener-D #12 Fastener-T	4-1/2"	1000	31 lbs	1000	28.8 lbs
#12 Fastener-D #12 Fastener-T	5	1000	34 lbs	1000	31.5 lbs
#12 Fastener-D #12 Fastener-T	6	1000	41 lbs	1000	37.1 lbs
#12 Fastener-D #12 Fastener-T	7	500	24 lbs	500	20.9 lbs
#12 Fastener-D #12 Fastener-T	8	500	28 lbs	500	23.9 lbs

All values given are approximate and are subject to change without notice. There is no implied or express warranty given through these values or statements, nor are there any assertions that the product purchased has been individually tested to conform to these standards. Testing is performed on a random basis by "in-house" and independent "third party" evaluation for the purpose of classification and or approval. Acceptance, purchase and selection of these products are the sole responsibility of the buyer or buyer's representative. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY U.S. PLY, INC. EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.