

Deck Screws

PRODUCT DESCRIPTION

Deck Screws are designed for attaching rigid insulation board, single-ply membrane, and wood blocking to carbon steel and wood decks. Some sizes can also be used in concrete decks. Available in carbon steel with a Perma-Seal™ coating. The deck screws are used in conjunction with insulation or membrane plates and can also be used with batten bar.

For corrosion protection the screws are coated with Perma-Seal, a proprietary fluoropolymer, which meets the requirements of Factory Mutual Research Corporation Standard 4470.

APPROVALS AND LISTINGS

Factory Mutual Research Corporation – Now known as FM Global (FM Approvals)
Steel and Wood

No. 12 Perma-Seal Deck Screw – J.I. 0K4A2.AM, J.I. 1M4A5.AM, J.I. 1M2A4.AM

Recover Construction

Power-Deck Screw – J.I. 1N2A4.AM

All Deck Types

Fully Adhered single-ply and modified bitumen roof coverings - J.I. 1T9A4.AM

MATERIAL SPECIFICATIONS

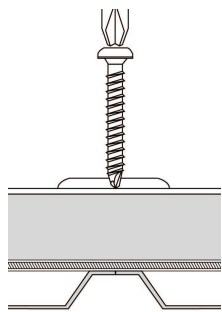
Anchor Component	Screw Size
	No. 12
Screw Body	Case Hardened AISI 1018 – 1022 Carbon Steel
Coating	Perma-Seal Fluoropolymer

INSTALLATION SPECIFICATIONS

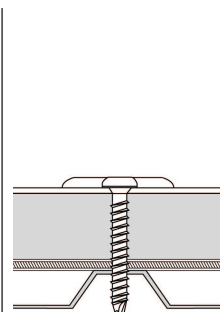
Anchor Size	No. 12
Driver Bit Size	3
Head Style	PH
Head Height (in.)	1/8
Head Width (in.)	7/16
Washer O.D.	–
Thread Size	12-13
Point Style	R

Head Style: PH = Phillips Head
Point Style: R = Ricoh "S" Point or Equivalent

INSTALLATION GUIDELINES



Insert the Phillips driver into Deck Screw head, then position screw in the plate.



Insert Deck Screw through hole in plate, and drive until flush.

Note: Screw must penetrate base material a minimum of 3/4".

Note: In steel and wood deck, the screw should penetrate through the base material at least 3/4". To select the proper length, determine the thickness of insulation to be fastened and add the thickness of the base material to this. Then add 3/4". This will be the minimum screw length required.

SECTION CONTENTS Page No.

General Information	1
Material Specifications	1
Installation Specifications	1
Performance Data	2
Ordering Information	2



Deck Screws

ANCHOR MATERIALS

Perma-Seal™ Coated Carbon Steel

ANCHOR SIZE RANGE (TYP.)

No. 12 x 1-5/8" to No. 12 x 8"

SUITABLE BASE MATERIALS

Steel
Wood
Concrete Roof Decks

PERFORMANCE DATA

Ultimate Load Capacities for Deck Screws installed in Steel Deck¹

Fastener Size	Tension lbs. (kN)			
	Nominal Gage			
	18	20	22	24
No. 12	560 (2.5)	455 (2.0)	450 (2.0)	335 (1.5)

1. Typical steel deck used in the tests was manufactured according to ASTM A 446, Grade C having a minimum yield strength of 40,000 psi and a minimum ultimate tension strength of 55,000 psi. The deck was galvanized according to ASTM A 525, G 60. Variations in coating and deck type will affect performance. In some cases, especially with thick steel deck materials, pre-drilled holes may be required.

Ultimate Load Capacities for Deck Screws installed in Plywood¹

Fastener Size	Tension lbs. (kN)			
	Plywood Thickness			
	3/8"	1/2"	5/8"	3/4"
No. 12	285 (1.3)	415 (1.9)	495 (2.2)	575 (2.5)

1. Apply appropriate safety factors.

Ultimate Load Capacities for Deck Screws fasteners¹

Screw Size	Torsion lbs. (kN)	Tension lbs. (kN)	Shear lbs. (kN)
No. 12	75 (0.3)	2,410 (10.8)	1,815 (8.2)

1. Ultimate load capacities do not consider base material.

ORDERING INFORMATION

Perma-Seal™ Coated No. 12 Phillips Head Deck Screw

Catalog Number	Size	Minimum Thread Length	Insulation Thickness	Standard Box	Standard Carton	Wt./100
2613	No. 12 x 1 5/8"	1 1/2"	1/8" to 7/8"	1,000	1,000	12
2618	No. 12 x 2 1/4"	2"	1/4" to 1 1/2"	1,000	1,000	16
2624	No. 12 x 2 7/8"	2 5/8"	1/4" to 2 1/8"	1,000	1,000	19
2530	No. 12 x 3 1/4"	3"	3/4" to 2 1/2"	1,000	1,000	22
2632	No. 12 x 3 3/4"	3"	3/4" to 3"	1,000	1,000	25
2636	No. 12 x 4 1/2"	3"	1 1/2" to 3 3/4"	1,000	1,000	30
2640	No. 12 x 5"	3"	2" to 4 1/4"	1,000	1,000	32
2648	No. 12 x 6"	4"	2" to 5 1/4"	500	500	40
2656	No. 12 x 7"	4"	2" to 6 1/4"	500	500	44
2664	No. 12 x 8"	4"	4" to 7 1/4"	500	500	48