

DRILL-TEC™ #14 FASTENER

Description

Drill-Tec™ #14 Fastener is designed to secure insulation to heavy steel decks (18 ga.– 20 ga.), wood decks, and structural concrete. It is available in lengths from 1-1/4" – 16" (31.8 – 406 mm). The Drill-Tec™ #14 Fastener is Factory Mutual and Miami-Dade County Product Control approved.

Application

The Drill-Tec™ #14 Fastener must penetrate steel decks a minimum of 3/4" (19.1 mm), wood plank decks a minimum of 1" (25.4 mm), and $\frac{1}{2}$ " (12.7 mm) through the underside for plywood decks. The Drill-Tec™ #14 Fastener requires a minimum embedment of 1" (25.4 mm) penetration into structural concrete. Predrill a 3/16" (4.76 mm) pilot hole using a carbide-tip SDS bit. The predrilled pilot hole must be a minimum of ½" (12.7 mm) deeper than the fastener embedment (at least a 2" [51 mm] deep pilot hole recommended). Using a screwshooter, drive the fastener until the screw head is seated securely; with very rigid insulation boards, watch for the plate to dimple.

Note: Be careful not to overdrive the fastener and fracture the skin of the insulation. Fastener must be tight enough so that the plate doesn't turn.

Code Approvals





Advantages

- Heavier shank & thread diameters than most "heavy duty" roofing fasteners.
- Deep thread for high pull-out resistance.
- Extra sharp drill point for quick installation in new or reroof applications.

Plates & Accessories

- Use 3" (76 mm) steel or plastic plates, depending upon the application.
- For best installation results, use a variable speed 0-2500 rpm screw gun.

Specifications

The fastener will be a Drill-Tec™ #14
Fastener with a shank diameter of .190
(.423 mm) and a thread diameter of
.245 (6.22 mm). The fastener must have
10 threads per inch (per 25.4 mm) and
have a 30° drill point. Also, the fastener
must be heat treated per specification
OMG-1. The Drill-Tec™ #14 Fastener
will be used with a Factory Mutualapproved, Drill-Tec™ Round Pressure
Plate. The fastener must be Factory
Mutual approved.

Coating Requirement

The fastener will be coated with the Drill-Tec™ CR-10 corrosion-resistant coating. When subjected to 30 Kesternich cycles (DIN 50018), the fastener must show less than 15% red rust and surpass Factory Mutual Approval Standard 4470.

| Product Data | | |
|--|-------------------------|--|
| Thread Diameter | .245" (6.22 mm) | |
| Shank Diameter | .190" (.423 mm) | |
| Head Diameter | .435" (11.04 mm) | |
| Head Style | #3 Phillips Truss Head* | |
| Coating | CR-10 | |
| *#3 Phillips bit included in each carton or bucket | | |

| Length | Thread Length | Packaging | Weight |
|---|------------------|-----------|------------------|
| 1 1/4" (31.8 mm) | Full | 1,000* | 13 lb (5.90 kg) |
| 1 ³ / ₄ " (44.4 mm) | Full | 1,000* | 17 lb (7.71 kg) |
| 2" (51 mm) | Full | 1,000* | 19 lb (8.62 kg) |
| 3" (76 mm) | Full | 1,000* | 27 lb (12.25 kg) |
| 4" (102 mm) | 3" (76 mm) | 1,000* | 35 lb (15.88 kg) |
| 5" (127 mm) | 4" (102 mm) | 500* | 23 lb (10.43 kg) |
| 6" (152 mm) | 4" (102 mm) | 500* | 26 lb (11.79 kg) |
| 7" (178 mm) | 4" (102 mm) | 500* | 30 lb (13.61 kg) |
| 8" (203 mm) | 4" (102 mm) | 500* | 34 lb (15.42 kg) |
| 9" (227 mm) | 4" (102 mm) | 500** | 37 lb (16.78 kg) |
| 10" (254 mm) | 4" (102 mm) | 500** | 40 lb (18.14 kg) |
| 11" (279 mm) | 4" (102 mm) | 500** | 44 lb (19.96 kg) |
| 12" (305 mm) | 4" (102 mm) | 250** | 25 lb (11.34 kg) |
| 14" (357 mm) | 4" (102 mm) | 250** | 29 lb (13.15 kg) |
| 16" (406 mm) | 4" (102 mm) | 250** | 38 lb (17.24 kg) |
| 18" (457 mm) | 4" (102 mm) | 250** | 41 lb (18.6 kg) |
| 20" (508 mm) | 4" (102 mm) | 250** | 47 lb (21.32 kg) |
| 22" (558.8 mm) | 4" (102 mm) | 250** | 51 lb (23.13 kg) |
| 24" (609 mm) | 4" (102 mm) | 250** | 56 lb (24.4 kg) |
| *Bucket **Box Longer Lengths Available Upon Request. | | | |

Drill-Tec[™] #14 Fastener



Example: Drill-Tec™#14 Fastener Length Selection Procedure

- 1. If applicable, determine thickness of existing roofing material.
- 2. Add thickness of new insulation.
- 3. Add ¾" (19.1 mm) minimum fastener penetration.
- 4. If odd size requirement, always size up in length, not down. See example below.

Example

Existing Roofing: 1 $\frac{3}{4}$ " (44.4 mm) New Insulation: + $\frac{1}{2}$ " (12.7 mm) Min. Embedment: + $\frac{3}{4}$ " (19.1 mm) Total Fastening Range: = 3" (76 mm)

The proper #14 Fastener for the example is 3" (76 mm).

Use this format to calculate correct fastener size:

Existing Roof:

New Insulation:

Call GAF For Information.

Min. Embedment: + 34" (19.1 mm)

Total Fastening Range: =

The proper #14 Fastener is: