

# Drill-Tec™ #14 Fastener

#### PRODUCT DESCRIPTION

Drill-Tec<sup>™</sup> #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<sup>™</sup> #14 Fastener is Factory Mutual and Miami-Dade County Product Control approved.

#### **APPLICATION INSTRUCTIONS**

### **Application**

The Drill-Tec<sup>TM</sup> #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 1/2" (12.7 mm) through the underside for plywood decks. The Drill-Tec<sup>TM</sup> #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 1/2" (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. Deep thread for high pull-out resistance.
- For best installation results, use a variable speed 0-2500 rpm screw gun.



#### **SPECIFICATIONS**

The fastener will be a Drill-Tec<sup>™</sup> #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<sup>™</sup> #14 Fastener will be used with a Factory Mutual-approved, Drill-Tec<sup>™</sup> 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 INFORMATION			
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		

<sup>\*#3</sup> Phillips bit included in each carton or bucket

In view of innovation, the specifications are subject to change without any prior notice and in the event of such changes, BMI shall ensure that the new specifications are equivalent if not better.

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

Note: All sizes are nominal. Longer lengths available upon request. Call BMI for information.

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## **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 3/4" (19.1 mm) minimum fastener penetration.
- 4. If odd size requirement, always size up in length, not down. See example below.

Example

Example
Existing Roofing: 1 3/4" (44.4 mm)

New Insulation: + 1/2" (12.7 mm)

Min. Embedment: + 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:

Min. Embedment: + ¾" (19.1 mm)

Total Fastening Range:

The proper #14 Fastener is:

### MONIER MALAYSIA SDN. BHD. (19163-M)