



Heavy Duty Roofing Fastener

PRODUCT DATA SPECIFICATIONS

PRODUCT DESCRIPTION

The OMG Heavy Duty Roofing Fastener (6.3 mm) is designed to secure insulation and single-ply membrane to steel 1.25 to 0.75 mm (18 to 22 Ga.) steel, wood and structural concrete decks. It is available in lengths from 30 to 610 mm (1¼- to 24-in.) and Factory Mutual and Miami-Dade County approved.

FEATURES & BENEFITS

- Heavier shank and thread diameters for maximum strength.
- Deep thread for high pullout resistance.
- Extra sharp spade point for quick installation in new or reroof applications
- In concrete applications, fastener may be reversed out of predrilled hole without damaging the deck.

COATING

OMG CR-10 corrosion resistant coating passes the corrosion requirements of FM Approval Standard 4470 and ETAG 006.

APPLICATION

For steel decks, 20 mm (¾-in.) penetration is the minimum allowable. Factory Mutual requires that fasteners penetrate the top flute.

For OSB and plywood,* 20 mm (¾-in) penetration through the underside of the board is the minimum allowable. For wood deck (wood beams, wood plank, tongue & groove), 25 mm (1-in.) penetration is the minimum allowable.

For concrete decks, pull-out values differ significantly depending on the type, quality and age of the concrete. **OMG strongly recommends conducting several pull tests** on-site with various pilot holes (5.2 mm to 5.5 mm is typical) using a carbide tip SDS or straight shank drill bit to determine an acceptable performance level.

For structural concrete decks, 25 mm embedment is the minimum allowable. The pilot hole should be at least 13 mm deeper than the fastener embedment.

Using a screw gun, drive the fastener until a slight depression is seen in the insulation and the plate. On rigid cover boards, care must be taken not to strip the deck.

The strength of different roof decks can vary widely and can be adversely affected by moisture and other conditions. Therefore, it is recommended that a fastener pull test be conducted to help evaluate deck condition and fastener suitability. Call OMG to schedule testing.

Note: Care must be taken not to overdrive the fastener. Fastener must be tight enough so that the plate doesn't turn. For best results, use a variable speed 0-2500 RPM screw gun.

To speed installation in steel and wood decks, this fastener can be used with the AccuTrac® System and is also available pre-assembled.

PLATES & ACCESSORIES

Use appropriate steel or plastic plates, depending on the application. On structural concrete decks, use a 5 mm (¼-in.) carbide tip SDS or straight shank bit.

APPROVALS



Factory Mutual listings refer to this product as OMG #14 Heavy Duty and OMG Heavy Duty #14 RoofGrip.



USE WITH
S
W
SC
DECK TYPES

PHYSICAL DATA†

The data below is constant for each OMG Heavy Duty Roofing Fastener.

HEAD	THREAD
#3 Phillips Truss Head 11.04 mm (.435") Diameter	6.22 mm (.245") Diameter
SHANK	COATING
4.82 mm (.190") Diameter	CR-10

#3 Phillips bit included in each carton.

ORDERING INFORMATION

CAT. NO.	LENGTH MM (IN)	THREAD MM (IN)	PKG QTY	WEIGHT KG (LBS)
HD30B	30 (1¼)	Full	1000	5.45 (12)
HD45B	45 (1¾)	Full	1000	7.26 (16)
HD50B	50 (2)	Full	1000	8.17 (18)
HD75B	75 (3)	Full	1000	11.8 (26)
HD100B	100 (4)	75 (3)	1000	15.44 (34)
HD125B	125 (5)	100 (4)	500	9.98 (22)
HD150B	150 (6)	100 (4)	500	11.8 (26)
HD175B	175 (7)	100 (4)	500	13.62 (30)
HD200B	200 (8)	100 (4)	500	15.44 (34)
HD230B	230 (9)	100 (4)	500	16.79 (37)
HD255B	255 (10)	100 (4)	500	18.16 (40)
HD280B	280 (11)	100 (4)	500	19.97 (44)
HD305B	305 (12)	100 (4)	250	11.35 (25)
HD355B	355 (14)	100 (4)	250	13.16 (29)
HD405B	405 (16)	100 (4)	250	16.79 (37)
HD455B	455 (18)	100 (4)	250	18.61 (41)
HD510B	510 (20)	100 (4)	250	21.33 (47)
HD530B	530 (21)	100 (4)	250	21.79 (48)
HD560B	560 (22)	100 (4)	250	22.70 (50)
HD610B	610 (24)	100 (4)	250	25.42 (56)

†All sizes are nominal.

KEY:

S Steel	SC Structural Concrete
W Wood	LC Lightweight Concrete
G Gypsum	LWIC Lightweight Insulating Concrete
P Purlins	CWF Cementitious Wood Fiber



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SPECIFICATION

The fastener will be an OMG Heavy Duty Roofing Fastener (#14) with a shank diameter of 4.82 mm (.190-in.) and a thread diameter of 6.22 mm (.245-in.). The fastener must have 10 threads per 25 mm and have a 30° spade point. Also, the fastener must be heat treated per specification OMG-1. The OMG Heavy Duty Roofing Fastener will be used with a Factory Mutual approved, OMG pressure plate. The fastener must be Factory Mutual approved.

COATING REQUIREMENT

The fastener will be coated with the OMG CR-10 corrosion resistant coating which passes the corrosion requirements of FM Approval Standard 4470 and ETAG 006.

APPLICATION

For steel decks, 20 mm (¾-in.) penetration is the minimum allowable. Factory Mutual requires that fasteners penetrate the top flute.

For OSB and plywood*, 20 mm (¾-in.) penetration through the underside of the board is the minimum allowable. For wood deck (wood beams, wood plank, tongue & groove), 25 mm (1-in.) penetration is the minimum allowable.

For concrete decks, pull-out values differ significantly depending on the type, quality and age of the concrete. **OMG strongly recommends conducting several pull tests** on-site with various pilot holes (5.2 mm to 5.5 mm is typical) using a carbide tip SDS or straight shank drill bit to determine an acceptable performance level.

For structural concrete decks, 25 mm embedment is the minimum allowable. The pilot hole should be at least 13 mm deeper than the fastener embedment.

Using a screw gun, drive the fastener until a slight depression is seen in the insulation and the plate. On rigid cover boards, care must be taken not to strip the deck.

The strength of different roof decks can vary widely and can be adversely affected by moisture and other conditions. Therefore, it is recommended that a fastener pull test be conducted to help evaluate deck condition and fastener suitability. Call OMG to schedule testing.

Note: Care must be taken not to over-drive the fastener. Fastener must be tight enough so that the plate doesn't turn. For best results, use a variable speed 0–2500 RPM screw gun.

To speed installation in steel and wood decks, this fastener can be used with the AccuTrac® System and is also available pre-assembled. See AccuTrac or ASAP®.

*FM does not approve OSB or plywood deck types.

HEAVY DUTY ROOFING FASTENER LENGTH SELECTION PROCEDURE

1. If applicable, determine the thickness of the existing roofing material.
2. Add thickness of new insulation.
3. **For steel, OSB and plywood applications:** Add 20 mm (¾-in.) minimum fastener penetration.
For structural concrete and wood plank applications: Add 25 mm (1-in.) minimum fastener penetration. **NOTE:** When predrilling for structural concrete, allow an extra 13 mm (½-in.)
4. If odd size requirement, always size up in length, not down. See example:

Steel Deck:	Example:	Your Project:
Existing Roofing	45 mm (1¾")	
New Insulation	13 mm (½")	
Min. Embedment	20 mm (¾")	20 mm (¾")
Total Fastening	75 mm (3")	
Correct Length	75 mm (3")	

The proper Heavy Duty Roofing Fastener for this steel deck example is 75 mm (3-in.).

Structural Concrete Deck:	Example:	Your Project:
Existing Roofing	57 mm (2¼")	
New Insulation	13 mm (½")	
Min. Embedment	25 mm (1")	25 mm (1")
Total Fastening	95 mm (3¾")	
Correct Length	100 mm (4")	

The proper Heavy Duty Roofing Fastener for this structural concrete deck example is 100 mm (4-in.).



ROOFING PRODUCTS

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