

**Drill-Tec™ DL Base Sheet Fastener,
Drill-Tec™ Base Sheet Fastener E, and
Drill-Tec™ Locking Impact Nail**

**Miami-Dade County
Notice of Acceptance (NOA)**

Updated: 10/10



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**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908**

NOTICE OF ACCEPTANCE (NOA)

**GAF Materials Corporation
1361 Alps Road
Wayne, NJ. 07470**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Drill-Tec™ DL Base Sheet Fastener, Drill-Tec™ Base Sheet Fastener E and the Drill-Tec™ Locking Impact Nail

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 12.

The submitted documentation was reviewed by Alex Tigera.



**NOA No.: 10-0331.06
Expiration Date: 04/17/13
Approval Date: 10/13/10
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ROOFING ASSEMBLY APPROVAL:

Category: Roofing Fasteners
Sub Categories: Base Sheet, Insulation

1. SCOPE

This approves GAF Material Corporations Drill-Tec™ roof fastening systems described in the Approved Applications section of this Notice of Acceptance, designed to comply with the High Velocity Hurricane Zone section of the Florida Building Code.

2. PRODUCT DESCRIPTION

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|--|-----------------------|----------------------------|---|
| Drill-Tec™ Base Sheet Fastener E (1.2 in.) | 2.7" head x 1.2" long | TAS 114 TAS 117 | Two piece factory preassembled base ply fastener/plate unit with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. The entire fastener is coated on both sides with a black urethane coating. For use in NVS concrete decks and various poured gypsum decks. |
| Drill-Tec™ Base Sheet Fastener E (1.7 in.) | 2.7" head x 1.7" long | TAS 114 TAS 117 | Two piece factory preassembled base ply fastener/plate unit with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. The entire fastener is coated on both sides with a black urethane coating. For use in lightweight insulating concrete and various poured gypsum decks. |



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| | | | |
|---|---|--------------------|--|
| Drill-Tec™ DL 1.7" Base Sheet Fastener | 2.46" wide x 3.59" long x 1.665" tall | TAS 114 TAS 117 | Two piece factory preassembled base ply fastener/plate unit with dual gripping shanks and integral rib reinforced Galvalume stress distribution plate, formed from 0.013 in. thick G-90 hot dipped galvanized steel. The entire fastener is coated on both sides with a black urethane coating. For use in lightweight insulating concrete and various poured gypsum decks. |
| Drill-Tec™ Locking Impact Nail | 2.7" head x 1.4" long, 2.7" head x 1.8" long, 2.7" head x 2.8" long, 2.7" head x 3.8" long, 2.7" head x 4.8" long | TAS 114 TAS 117 | Three piece factory preassembled fastener/plate unit. Tube formed from .030" thick G-90 hot dipped galvanized steel. A 2.7" diameter disk formed from .018" AZ-55 Galvalume steel is factory assembled to each fastener. Locking staple formed from .080" coated steel is factory assembled into tube. For base ply and insulation attachment to new or existing cementitious wood fiber, poured gypsum and lightweight insulating concrete decks. |



2.1 EVIDENCE SUBMITTED

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Test Name/Report</u> | <u>Date</u> |
|-------------------------------------|---|-------------------------|-------------|
| Trinity ERD | Withdrawal Performance | | |
| Factory Mutual Research Corporation | Wind Uplift | J.I. 0R0Q1.AM | 03/22/91 |
| Factory Mutual Research Corporation | Wind Uplift | J.I. 1V1A9.AM | 07/12/91 |
| Factory Mutual Research Corporation | Standard 4470 | J.I. 0V8A3.AM | 11/13/91 |
| Factory Mutual Research Corporation | Standard 4470 | J.I. 1V9A8.AM | 02/25/92 |
| Factory Mutual Research Corporation | Wind Uplift | J.I. 0W2A0.AM | 03/19/92 |
| Factory Mutual Research Corporation | Wind Uplift | J.I. 1W5A2.AM | 10/05/92 |
| Factory Mutual Research Corporation | Wind Uplift | J.I. 0W4A1.AM | 01/04/93 |
| Factory Mutual Research Corporation | Corrosion Resistance Testing of Loc-Nails | J.I. 0W4A1.AM | 01/07/93 |
| Factory Mutual Research Corporation | Standard 4470 | J.I. 3W3A5.AM | 01/27/94 |
| Trinity Engineering, Inc. | Dynamic Pull Through TAS 117(B) | #4670.10.95-1 | 10/01/95 |
| Exterior Research & Design, LLC. | TAS 117(A), (B) & (C) | #4670.07.97-1 | 07/20/97 |
| Factory Mutual Research Corporation | Corrosion Resistance | 3031797 | 05/19/08 |
| Trinity ERD | TAS 117(A) & (B) | #EO8950.04.08 | 04/17/08 |



2.2 TYPICAL PROPERTIES

Note: A margin of safety of 2 has been applied to the listed test results.

| Withdrawal Resistance Performance - TAS 117(A) - Static Load | | | |
|---|---|---|---------------------|
| Fastener | Deck Type | Static Withdrawal Resistance (lbf) | |
| | | | |
| Drill-Tec™ DL 1.7" Base Sheet Fastener | Min. 200 psi cellular Lightweight concrete | 3 day cure 44.0 | 28 day cure 82.0 |
| Drill-Tec™ Base Sheet Fastener E (1.2 in.) | Poured gypsum | 30.0 | |
| Drill-Tec™ Base Sheet Fastener E (1.7 in.) | Min. 200 psi cellular Lightweight concrete | 3 day cure 32.1 | 28 day cure 53.5 |
| | Min. 200 psi aggregate lightweight concrete | 3 day cure 39.9 | 28 day cure 77.3 |
| Drill-Tec™ Locking Impact Nail | Poured gypsum | 262.7 | |
| Drill-Tec™ Locking Impact Nail | Cementitious wood fiber | 176.2 | |

| Withdrawal Resistance Performance - TAS 117(A) - Pulsating Load | | |
|--|---|---|
| Fastener | Deck Type | Static Withdrawal Resistance (lbf) |
| | | |
| Drill-Tec™ DL 1.7" Base Sheet Fastener | Min. 200 psi cellular lightweight concrete | 28 day cure - 65 |
| Drill-Tec™ Base Sheet Fastener E (1.2 in.) | Poured gypsum | 25.8 |
| Drill-Tec™ Base Sheet Fastener E (1.7 in.) | Min. 200 psi cellular lightweight concrete | 28 day cure – 42.9 |
| | Min. 200 psi aggregate lightweight concrete | 28 day cure – 66.3 |
| Drill-Tec™ Locking Impact Nail | Poured gypsum | 196.0 |
| Drill-Tec™ Locking Impact Nail | Cementitious wood fiber | 105.0 |



**Base Sheet Rupture Performance, TAS 117(B):
2.5" x 3.6" Plate - Drill-Tec™ DL 1.7" Base Sheet Fastener**

| Manuf. | Base Sheet | Rupture Value (lbf) | Manuf. | Base Sheet | Rupture Value (lbf) |
|----------------|---|----------------------------|---------------|-----------------------------|----------------------------|
| Certaineed | Glassbase | 128 | Polyglass | Elastobase V | 156 |
| | Flex-I-Glas Base | 134 | | PolyProtector UDL | 97 |
| | PolySMS Base | 186 | | Elastobase V (poly surface) | 88 |
| | Flintlastic SA Nailbase | 78 | PRS | Derbi Base | 130 |
| Firestone | SBS Base Sheet | 163 | Siplast | Parabase | 147 |
| | APP 160 | 182 | Soprema | Modified Sopra G | 127 |
| | SBS Glass Torch Base | 128 | | Soprabase | 117 |
| | SBS Poly Torch Base | 173 | Tamko | Glass-Base | 133 |
| GAF | GAFGLAS® #75 Base Sheet | 131 | | Vapor Chan | 136 |
| | GAFGLAS® Stratavent® Eliminator™ Venting Base Sheet | 131 | Tarco | Easy Base | 93 |
| | GAFGLAS® #80 Ultima Base Sheet | 99 | Tremco | BURMastic Glass Ply | 142 |
| | Liberty™ SBS MA Mechanically Attached Base | 82 | | Vapor Chan | 231 |
| Garland | HPR Glas Base | 140 | US Ply | USP Base | 144 |
| | HPR Tri Base Plus | 226 | | Duraflex 30 SBS Base | 132 |
| Johns Manville | Permaply #28 | 137 | | USP NVB | 140 |
| | Ventsulation | 124 | WP Hickman | Multi-Ply Glass | 146 |
| | Dynabase | 153 | | Multi-Ply Glass CL | 212 |
| | | | | Performance Ply | 191 |
| | | | | Pika Ply HI-TEC 60 | 230 |



| Base Sheet Rupture Performance, TAS 117(B): Drill-Tec™ Base Sheet Fastener E (1.2 in.) or Drill-Tec™ Base Sheet Fastener E (1.7 in.) | | | | | |
|---|---|----------------------------|----------------|-------------------------|----------------------------|
| Manuf. | Base Sheet | Rupture Value (lbf) | Manuf. | Base Sheet | Rupture Value (lbf) |
| Honeywell | Glass Fiber Base Sheet | 84 | Johns Manville | Glasbase | 103 |
| | Vented Base Sheet | 85 | | Dynabase | 104 |
| Celotex | Channel Vent GB | 95 | | Ventsulation | 109 |
| | Vaporbar GB | 92 | Siplast | Parabase | 101 |
| | Hydrostop | 102 | | Parabase Plus | 100 |
| Firestone | MB Base | 88 | Soprema | Sopra-G | 103 |
| GAF | GAFGLAS® #75 Base Sheet | 103 | | Elastophene 180 | 107 |
| | GAFGLAS® Stratavent® Eliminator™ Venting Base Sheet | 89 | | Sopralene 180 | 115 |
| CertainTeed | Flex-I-Glas Base | 106 | Tamko | Nail Fast | 99 |
| | PolySMS | 111 | | Versa Base | 106 |
| Koppers | Glass Fiber Base | 108 | Tremco | BURmastic Glass Ply | 114 |
| | Organic Base | 94 | | BURmastic Composite Ply | 114 |
| Malarkey | #501 | 110 | U.S. Intec | Ultra Base | 95.0 |
| | #602 | 107 | | Flex Base | 111 |
| | #603 | 114 | | Modified Base | 111 |
| | #605 | 109 | | Permavent | 117 |
| Nord | NBS G-2 Base | 102 | W.P Hickman | Multi Ply | 112 |
| | Nordstar Base | 110 | | Performance Ply | 113 |
| | | | | Pika Ply SS-2 | 116 |



| Base Sheet Rupture Performance, TAS 117(B): 2.7" Head | | | | | |
|--|--|-----------------------------|----------------|-------------------|-----------------------------|
| Drill-Tec™ Locking Impact Nail | | | | | |
| Manuf. | Base Sheet | Rupture Value (lbs.) | Manuf. | Base Sheet | Rupture Value (lbs.) |
| Honeywell | Black Armor base Sheet | 109 | Johns Manville | Dynabase | 151 |
| Bitec | Beta Base | 120 | Johns Manville | Vestulation | 114 |
| CertainTeed | Glasbase | 90 | Johns Manville | Perma Ply-28 | 138 |
| CertainTeed | Flex-I-Glas Base | 120 | Siplast | Parabase | 109 |
| CertainTeed | Flex-I-Glas All Weather Empire Base | 125 | Siplast | Parabase Plus | 140 |
| Firestone | MB Base | 128 | Soprema | Sopra-G | 123 |
| GAF | GAFGLAS® Stratavent® Eliminator™ Venting Base Sheet | 119 | Soprema | Modified Sopra-G | 103 |
| GAF | GAFGLAS® Stratavent® Eliminator™ Perforated Base Sheet | 97 | Tamko | Glass-Base | 117 |
| GAF | GAFGLAS® #75 Base Sheet | 117 | Tamko | Vapor-Chan | 158 |
| WP Hickman | Multiply glass | 133 | Tamko | Base-N-Ply | 103 |
| WP Hickman | Multiply glass CL | 191 | | | |

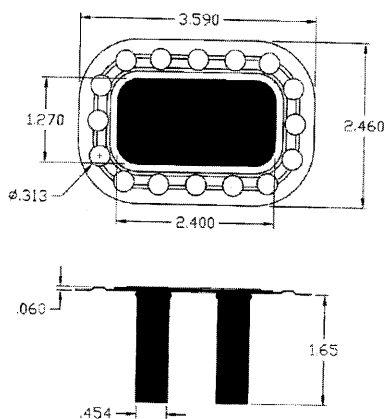


3. APPROVED APPLICATIONS

Tradename: Drill-Tec™ DL 1.7" Base Sheet Fastener

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: Approved minimum 200-psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems



DRILL-TEC™ DL 1.7" BASE SHEET FASTENER

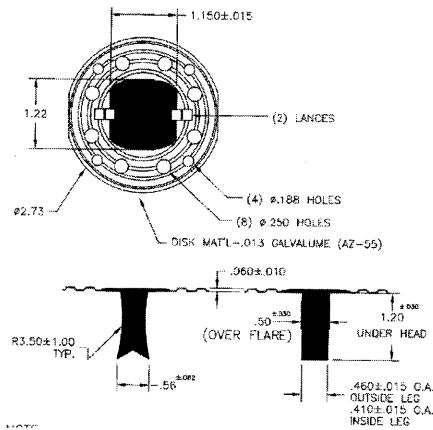
NOTE: BLACK SHADED AREA REPRESENTS COATED LOCATIONS.

Tradename: Drill-Tec™ Base Sheet Fastener E (1.2 in.)

Compatible Plate(s): N/A

Application: Drill-Tec™ Base Sheet Fastener E (1.2 in.) is an approved and acceptable alternate to the Drill-Tec™ CR 1.2" Base Sheet Fastener. Drill-Tec™ Base Sheet Fastener E (1.2 in.) may be used in any approved Roof Assembly NOA where the Drill-Tec™ CR 1.2" Base Sheet Fastener is referenced. Approved fastening patterns and densities listed in any approved Roof Assembly NOA containing the Drill-Tec™ CR 1.2" Base Sheet Fastener shall be acceptable when using Drill-Tec™ Base Sheet Fastener E (1.2 in.).

Deck: Approved NVS lightweight concrete, various poured gypsums, existing gypsum. See lightweight concrete deck Notice of Acceptance for Approved deck systems



DRILL-TEC™ BASE SHEET FASTENER E (1.2 IN.)

NOTE: BLACK SHADED AREA REPRESENTS COATED LOCATIONS.

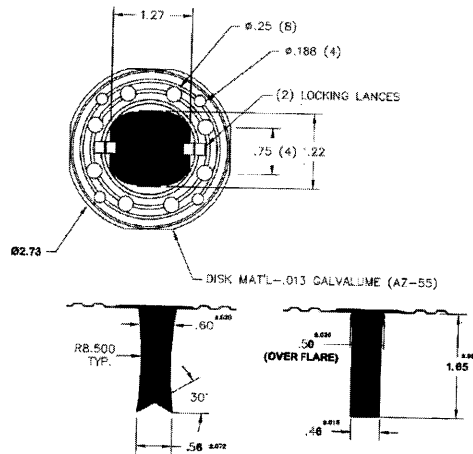


Tradename: Drill-Tec™ Base Sheet Fastener E (1.7 in.)

Compatible Plate(s): N/A

Application: Drill-Tec™ Base Sheet Fastener E (1.7 in.) is an approved and acceptable alternate to the Drill-Tec™ CR 1.7" Base Sheet Fastener. Drill-Tec™ Base Sheet Fastener E (1.7 in.) may be used in any approved Roof Assembly NOA where the Drill-Tec™ CR 1.7" Base Sheet Fastener is referenced. Approved fastening patterns and densities listed in any approved Roof Assembly NOA containing the Drill-Tec™ CR 1.7" Base Sheet Fastener shall be acceptable when using Drill-Tec™ Base Sheet Fastener E (1.7 in.)

Deck: Approved minimum 200-psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems.



DRILL-TEC™ BASE SHEET FASTENER E (1.7 IN.)



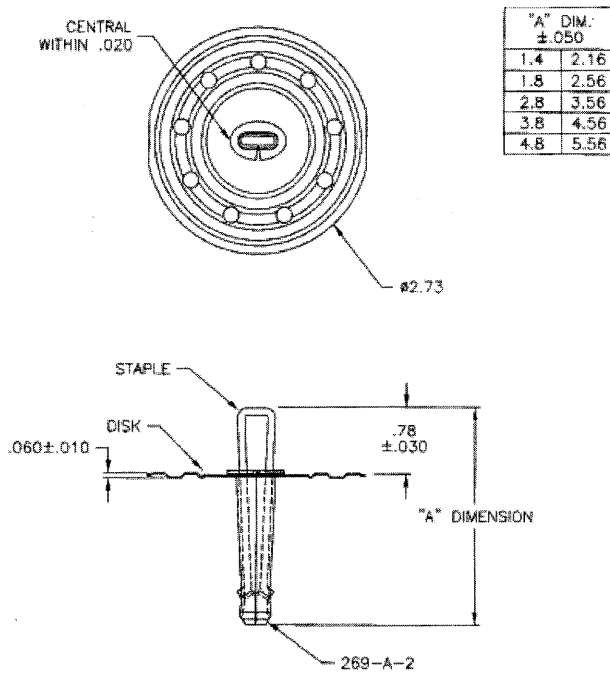
NOTE: BLACK SHADED AREA REPRESENTS COATED LOCATIONS.

Tradename: Drill-Tec™ Locking Impact Nail

Compatible Plate(s): N/A

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: New or sound existing Cementitious Wood Fiber, Poured Gypsum, Lightweight Concrete.



DRILL-TEC™ LOCKING IMPACT NAIL

END OF THIS ACCEPTANCE



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