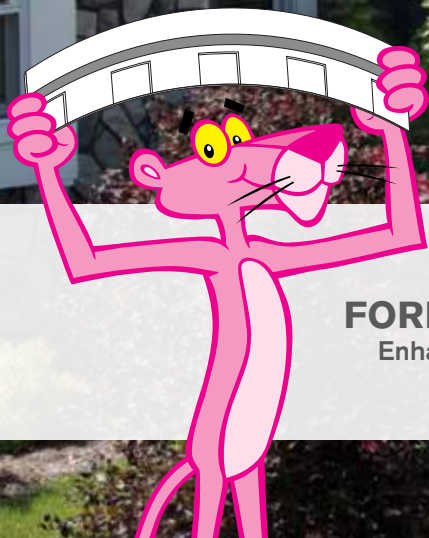
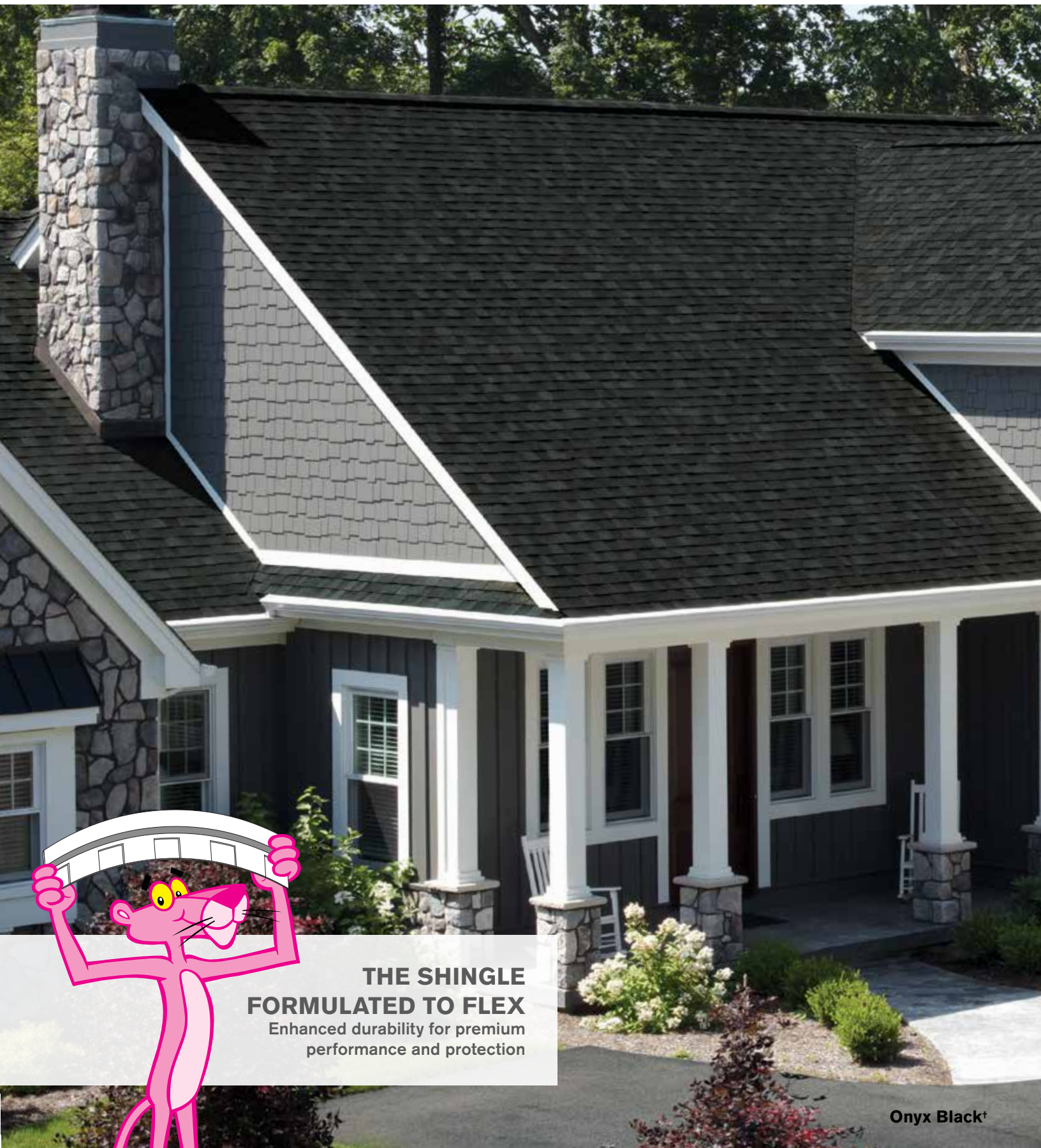




TruDefinition®
DURATION FLEX™
Shingles *with SureNail® Technology*



**THE SHINGLE
FORMULATED TO FLEX**
Enhanced durability for premium
performance and protection

Onyx Black†



MORE THAN JUST A ROOF™ **IT'S PROTECTION FOR YOUR HOME.**

Your home is the center of your world—where your memories are made. And we see it as our job to make the world a better place. So, Owens Corning is relentless about reimagining and creating materials that help protect your biggest investment, your home.

When you choose Owens Corning® roofing products, you get products and systems that deliver a material difference—a difference that can be seen in the curb appeal of your roof and experienced through premium performance, protecting your home and family.

Our commitment to quality offers you peace of mind that your new roof will stand the test of time. At Owens Corning, we know that your roof does more than just cover your house, it helps protect your future memories.



TruDefinition®
DURATION FLEX™
Shingles *with SureNail® Technology*



Your shingles need to help protect your home on a daily basis. Duration FLEX™ shingles are more flexible than standard shingles, for enhanced durability and performance in all environmental conditions, including storms and cold weather installation. And they're the only SBS modified polymer shingle that also comes with the advanced performance of patented SureNail® Technology for added confidence in windy conditions.

As with other Duration® Series shingles, Duration FLEX™ shingles include:

- Patented SureNail® Technology for exceptional wind resistance
- Limited Lifetime Warranty**/†
- 130-MPH Wind Resistance Limited Warranty**
- StreakGuard™ Protection with a 10-year Algae Resistance Limited Warranty**

Driftwood†



HELP PROTECT WITH THE POWER OF FLEX

Made with a proprietary blend of SBS polymer modified asphalt

The rubberizing effect of our uniquely blended SBS modified asphalt makes the shingles pliable and gives them greater flexibility than standard shingles. The result is a premium architectural asphalt shingle with enhanced durability and toughness, especially under intense storm conditions, to help deliver lasting protection for your home.

Duration FLEX™ Shingles

- Feature SureNail® Technology which gives a **42% better nail-pull resistance** against the wind versus standard shingles.
- Have built-in flexibility to help resist cracking and tearing, in all-weather installation conditions — **over 10% stronger tear strength than traditional shingles.**
- **Lays flat faster** than standard shingles.
- Offer rubber-like flexibility to withstand expansion and contraction stresses and helps **minimize loss of granules** which help to protect the shingle against UV.
- Help absorb the energy of the impact of hail or storm debris; have the **highest impact rating possible**; UL 2218 Class 4 and may qualify for a homeowner insurance discount*.

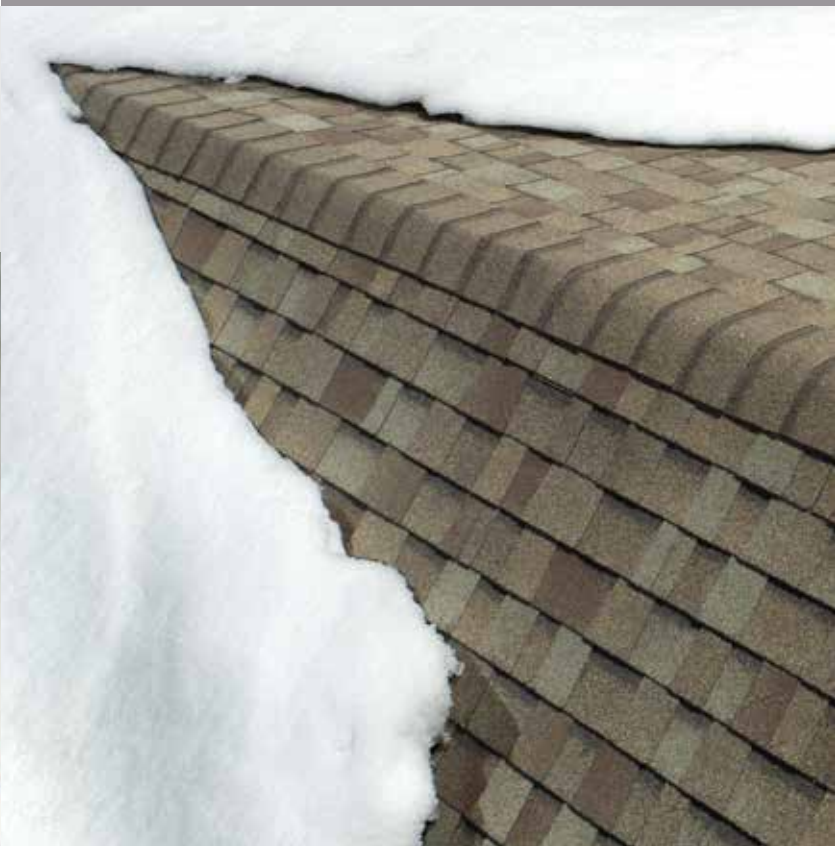
LAYS FLAT FASTER

Duration FLEX™ shingles are specifically formulated to lay flat more quickly than standard shingles in all weather conditions for a clean, finished look.



10% MORE TEAR STRENGTH
VS. STANDARD OXIDIZED ASPHALT SHINGLES

Resist cracking and tearing in all-weather conditions including cold weather handling.



42% MORE NAIL-PULL RESISTANCE
VS. STANDARD SHINGLES WITHOUT SURENAIL® TECHNOLOGY

THE ONLY SBS SHINGLE WITH SURENAIL® TECHNOLOGY

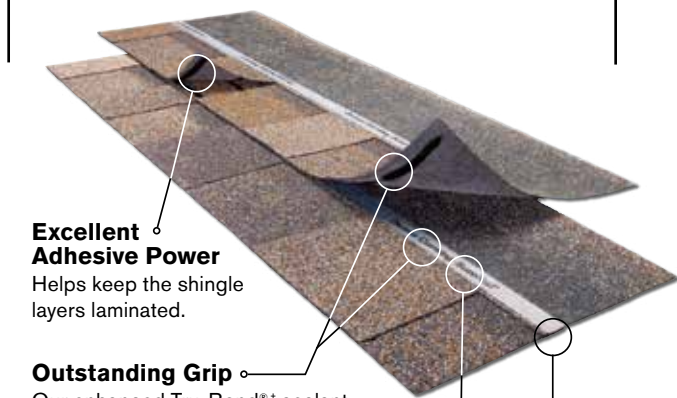


When performance is your priority, choose the shingle that offers you a material difference.

Duration FLEX™ shingles are the only SBS modified polymer shingle with the added confidence of patented SureNail® Technology for exceptional wind resistance.



- **UL 2218, Class 4**
Highest rating possible for impact resistance.
- **Flexible Shingles**
Withstands shingle expansion and contraction; helps resist cracking and tearing.



- **Excellent Adhesive Power**
Helps keep the shingle layers laminated.
- **Outstanding Grip**
Our enhanced Tru-Bond® sealant grips tightly to the engineered fabric nailing strip on the shingle below.
- **Breakthrough Design**
Patented SureNail® Technology is the first and only reinforced nailing zone on the face of the shingle.
- **“No Guess” Wide Nailing Zone**
This tough, engineered woven-fabric strip is embedded in the shingle to create an easy-to-see, strong, durable fastener zone.
- **Triple Layer Protection**
A unique “triple layer” of reinforcement occurs when the fabric overlays the common bond of the shingle laminate layers that offers excellent fastener holding power.

Double the Common Bond
SureNail® Technology features up to a 200% wider common bond area in the nailing zone over standard shingles.

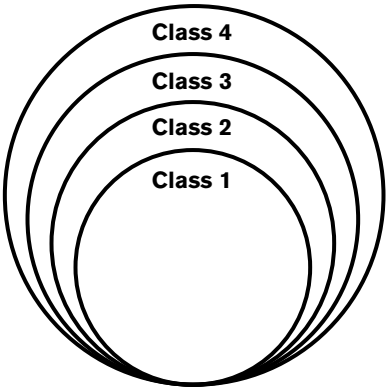
FIRST CLASS PROTECTION

UL 2218

Underwriters Laboratories (UL) has one of the most demanding standards for testing the impact resistance of shingles. The UL 2218 test determines the amount of stress a newly manufactured roofing shingle can withstand without cracking. It also rates the shingle's performance. Duration FLEX™ shingles have achieved one of the highest ratings possible — Class 4. Here's how the testing works:

- Four different-sized steel balls are used to simulate the force of free-falling hailstones
- To test impact resistance, shingles are stuck twice in the same spot
- A class rating is assigned to signify resistance to a particular size steel ball — the higher the class rating, the greater the resistance

Choose Duration FLEX™ shingles along with ProEdge FLEX™ Impact-Resistant Hip & Ridge shingles for a complete UL 2218, Class 4 Impact-Resistant Roof System.



Class 1	1¼" steel ball
Class 2	1½" steel ball
Class 3	1¾" steel ball
Class 4	2" steel ball



Desert Tan†



Antique Silver†



Brownwood†



Estate Gray†



Teak†



Onyx Black†

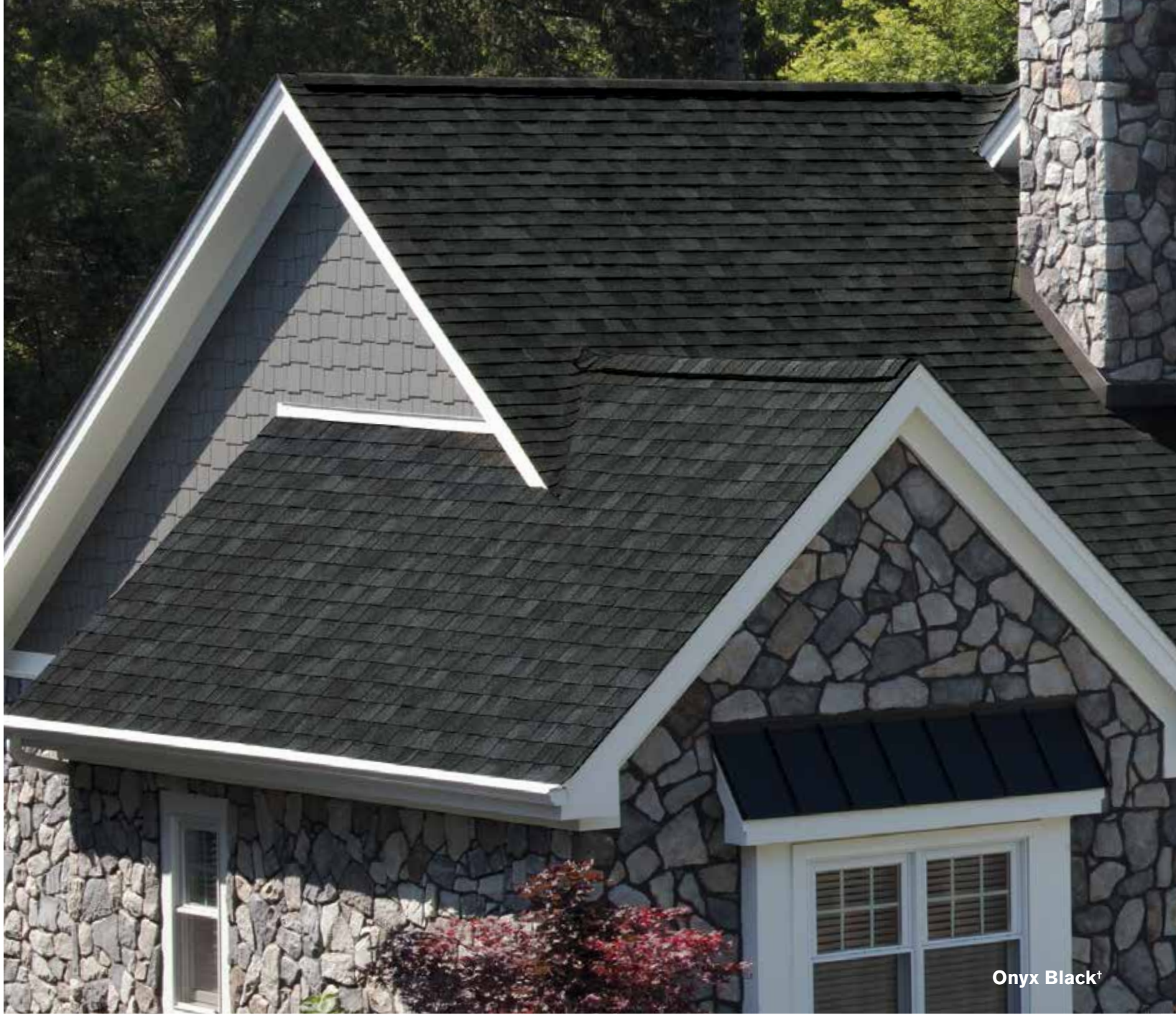


Driftwood†



**SEE HOW YOUR SELECTED SHINGLE
COLOR WILL LOOK ON YOUR HOME.**

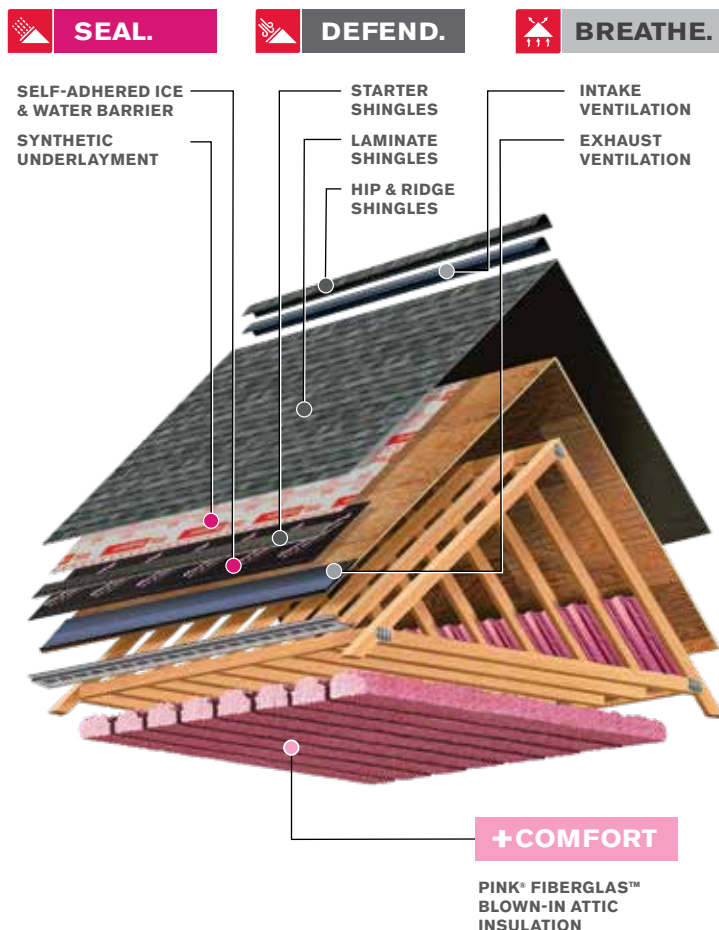
Try it out at [owenscorning.com/DEQ](https://www.owenscorning.com/DEQ)



SEAL. DEFEND. BREATHE.™

TOTAL PROTECTION ROOFING SYSTEM®

It takes more than just shingles to protect a home. It takes an integrated system of components and layers designed to perform in three critical areas. The Owens Corning® Total Protection Roofing System®^ gives you the assurance that all of your Owens Corning® roofing components are working together to help increase the performance of your roof.



Product Attributes

Warranty Length**

Limited Lifetime** (for as long as you own your home)

Wind Resistance Limited Warranty**

130 MPH

Algae Resistance Limited Warranty**

10 Years

TRU PROTECTION® Non-Prorated Limited Warranty** Period

10 Years

TruDefinition® Duration FLEX™

Nominal Size	13 ¹ / ₄ " x 39 ³ / ₈ "
Exposure	5 ⁵ / ₈ "
Shingles per Square	64
Bundles per Square	3
Coverage per Square	98.4 sq. ft.

ProEdge FLEX™ Hip & Ridge Product Specifications

Exposure	6"
Nominal Size	12" x 36"
Piece Size	12" x 12"
Shingles per Bundle	22
Pieces per Shingle/Bundle	3/66
Lineal Coverage per Bundle	33 ft.

Applicable Standards and Codes

ASTM D228

ASTM D3018 (Type 1)

ASTM D3161 (Class F Wind Resistance)

ASTM D3462

ASTM D7158 (Class H Wind Resistance)

ASTM E108/UL 790 (Class A Fire Resistance)

UL 2218 (Class 4 Impact Resistance)

UL ER2453-01##

UL ER2453-02##

* Homeowners should double-check with their insurance company to see if they qualify.

** See actual warranty for complete details, limitations and requirements.

† Owens Corning strives to accurately reproduce photographs of shingles. Due to manufacturing variances, the limitations of the printing process and the variations in natural lighting, actual shingle colors and granule blends may vary from the photo. The pitch of your roof can also impact how a shingle looks on your home. We suggest that you view a roofing display or several shingles to get a better idea of the actual color. To accurately judge your shingle and color choice, we recommend that you view it on an actual roof with a pitch similar to your own roof prior to making your final selection. Color availability subject to change without notice. Ask your professional roofing contractor for samples of colors available in your area.

†† This illustration depicts Triple Layer Protection® and the amount of Triple Layer Protection® may vary on a shingle-to-shingle basis.

‡ Tru-Bond® is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing & Asphalt, LLC.

40-Year Limited Warranty on commercial projects.

Underwriters Laboratories Evaluation Service Evaluation Report.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.

SureNail® Technology is not a guarantee of performance in all-weather conditions.



OWENS CORNING ROOFING AND ASPHALT, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK®
www.owenscorning.com

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TruDefinition®
DURATION®

Shingles with Patented SureNail® Technology
Tejas con tecnología patentada SureNail®



Driftwood®



DEEP DIMENSION OUTSTANDING PERFORMANCE

Duration® Shingles offer:

- The high-performance of SureNail® Technology
- A TruDefinition® Color Platform
- A Limited Lifetime Warranty*^{*/‡} for as long as you own your home
- The protection of a 130-MPH wind warranty*
- StreakGuard® Protection with a 25-year Algae Resistance Limited Warranty^{3/§}

UNA NUEVA DIMENSIÓN DESEMPEÑO SOBRESALIENTE

Las tejas Duration® ofrecen:

- El gran desempeño de la tecnología SureNail®
- La gama de colores TruDefinition®
- Una garantía limitada de por vida*^{*/‡} mientras sea propietario de la vivienda
- La protección de una garantía contra vientos de hasta 210 km/h (130 mph)*
- Protección StreakGuard® con una garantía limitada de 25 años de resistencia a las algas ^{3/§}



Don't let black streaks lower the value or curb appeal of your home.

Owens Corning blends specialized copper-lined granules, developed by 3M, a leading producer of roofing granules, into our colorful shingles. This helps resist blue-green algae growth.

No deje que las manchas de algas afecten al valor o aspecto de su vivienda.

En sus coloridas tejas, Owens Corning añade gránulos especiales con recubrimiento de cobre, desarrollados por 3M, un productor líder de gránulos para techos. Esto ayuda a prevenir la proliferación de algas azul-verdosas.



THE FINISHING TOUCH

OWENS CORNING® HIP & RIDGE SHINGLES

Owens Corning® Hip & Ridge Shingles are uniquely color matched to TruDefinition® Duration® Shingles. The multiple color blends are only available from Owens Corning® Roofing and offer a finished look for the roof.

EL TOQUE FINAL

TEJAS DE LIMATESA Y CUMBRERA DE OWENS CORNING®

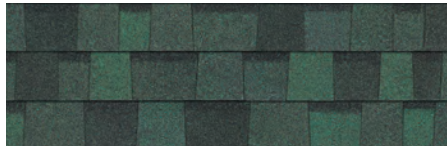
Las tejas de limatesa y cumbrera de Owens Corning® se ofrecen en una exclusiva gama de colores para combinar con las tejas Duration® TruDefinition®. Esta gran variedad de combinaciones de colores es una exclusividad de Owens Corning® Roofing para lograr techos con un acabado único.

TruDefinition® **DURATION®**

Shingles with Patented SureNail® Technology | Tejas con tecnología patentada SureNail®



Brownwood¹



Chateau Green¹



Desert Rose¹



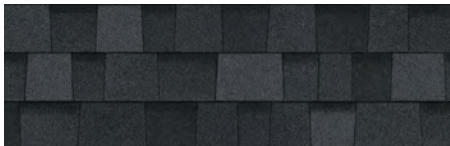
Driftwood¹



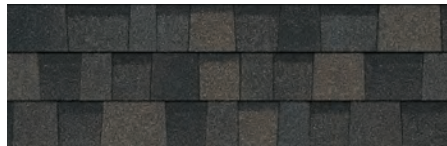
Estate Gray¹



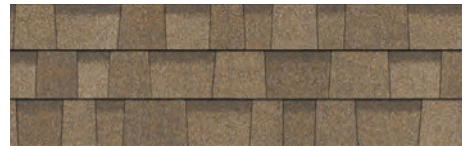
Midnight Plum^{1/5}



Onyx Black¹



Peppercorn¹



Sand Castle¹

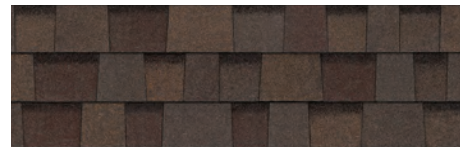
Not available in Service Area 12
No se puede obtener en el área de distribución 12



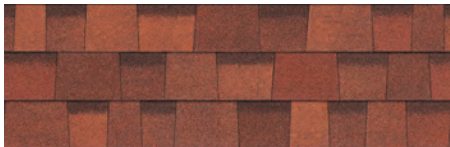
Sierra Gray¹



Slatestone Gray¹

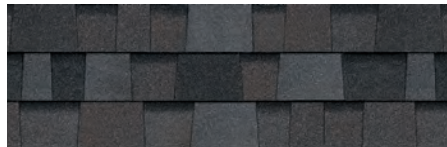


Teak¹



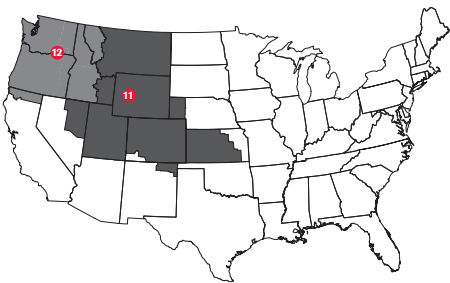
Terra Cotta¹

Not available in Service Area 12
No se puede obtener en el área de distribución 12



Williamsburg Gray¹

COLOR AVAILABILITY MAP Disponibilidad de colores por zonas/región



COLOR DISCLAIMER

As color experts, we know getting the shingle color right is a big part of any roofing purchase. Due to printing color variations, in addition to viewing shingle literature, we suggest you request an actual shingle sample to see how it will appear on your home and with your home's exterior elements in various natural lighting conditions. Lastly, we recommend you verify your color choice by seeing it installed on an actual home; your roofing contractor or supplier can provide a sample and may be able to direct you to a local installation.

DESCARGO DE RESPONSABILIDAD SOBRE LOS COLORES

En tanto que especialistas en color, sabemos que obtener el color de teja perfecto es una parte importante en toda compra de techos. Debido a las variaciones en los colores impresos, además de mirar folletos de tejas, le sugerimos que solicite una muestra de la teja para ver como se verá en su hogar y con los elementos externos de la vivienda bajo distintas condiciones de luz natural. Finalmente, le recomendamos que para verificar su elección de colores, vea cómo lucen las tejas ya instaladas en una vivienda; su contratista de techos o su proveedor le pueden dar una muestra e incluso indicarle dónde ver un techo ya instalado.

THERE'S A LINE BETWEEN A GOOD SHINGLE AND A GREAT SHINGLE.®

It's the nailing line on your shingles. The difference between a good shingle and a great shingle is having Patented SureNail® Technology, only from Owens Corning.

HAY UNA GRAN DIFERENCIA ENTRE UNA BUENA TEJA Y UNA TEJA EXCELENTE™

Es la línea de clavado en su tejas. La diferencia entre una buena teja y una teja excelente es la tecnología patentada SureNail®, una exclusividad de Owens Corning.

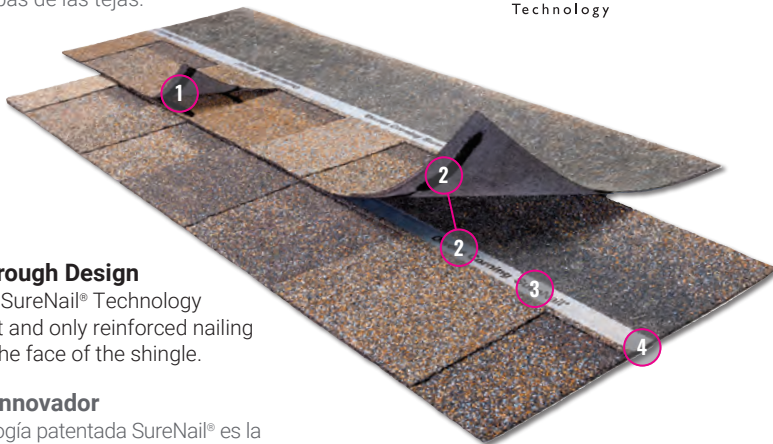
1

Excellent Adhesive Power

Helps keep the shingle layers laminated.

Excelente poder adhesivo

Ayuda a conservar el laminado de las capas de las tejas.



2

Breakthrough Design

Patented SureNail® Technology is the first and only reinforced nailing zone on the face of the shingle.

Diseño innovador

La tecnología patentada SureNail® es la primera y la única que provee un área de clavado reforzada en la cara de la teja.

"No Guess" Wide Nailing Zone

This tough, engineered woven-fabric strip is embedded in the shingle to create an easy-to-see, strong, durable fastener zone.

Área de clavado ancha, sin cálculos "a ojo"

Esta banda resistente de tela mecánica tejida está incrustada en la teja para proveer un área de sujeción resistente, duradera y fácil de detectar.

3

Outstanding Grip

The SureNail® strip enhances the already amazing grip of our proprietary Tru-Bond®** sealant for exceptional wind resistance of a 130-MPH wind warranty.*

Agarre excepcional

La banda SureNail® mejora el excelente agarre de nuestro sellador patentado Tru-Bond®** con una garantía de resistencia al viento excepcional de 210 km/h (130 mph).*

4

Triple Layer Protection®+

A unique "triple layer" of reinforcement occurs when the fabric overlays the two shingle layers, providing increased protection against "nail pull" from the wind.

Triple Layer Protection®+

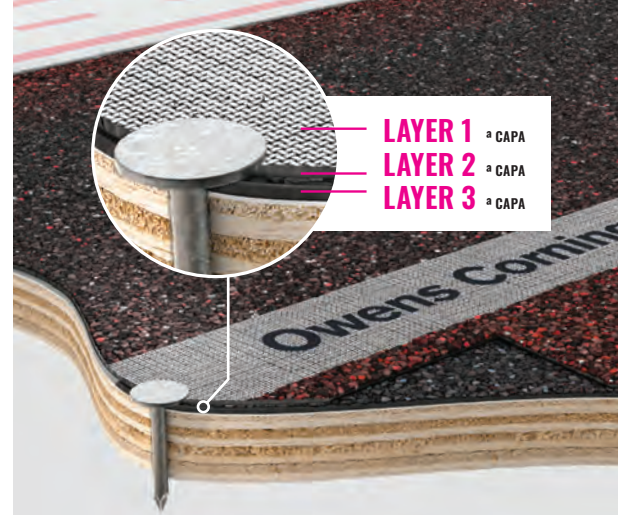
Cuando la tela cubre las dos capas de la teja, se forma una "triple capa" de refuerzo excepcional que ofrece una mayor protección ante el "arranque de clavos" debido al viento.

Double the Common Bond

SureNail® features up to a 200% wider bond between the shingle layers in the nailing zone over standard shingles.

Duplica la adherencia común

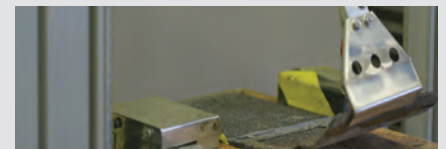
En comparación con las tejas comunes, SureNail® ofrece un área de unión hasta un 200 % más ancha entre las capas de la teja en el área de clavado.



LAYER 1 CAPA
LAYER 2 CAPA
LAYER 3 CAPA

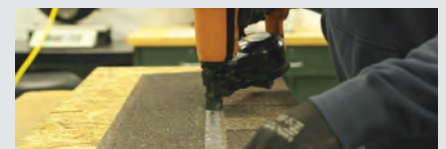
THE PROOF IS IN THE PERFORMANCE

LA PRUEBA ESTÁ EN EL DESEMPEÑO



Up to
2.5X
BETTER
NAIL PULL-THROUGH RESISTANCE

Hasta
2.5
VECES MEJOR
RESISTENCIA A LA TRACCIÓN DE LOS CLAVOS



Up to
9X
BETTER
NAIL BLOW-THROUGH RESISTANCE

Hasta
9
VECES MEJOR
RESISTENCIA AL DESPRENDIMIENTO DE LOS CLAVOS



Up to
2X
BETTER
DELAMINATION RESISTANCE

Hasta
2
VECES MEJOR
RESISTENCIA A LA DELAMINACIÓN



TOTAL PROTECTION SIMPLIFIED®

It takes more than just shingles to protect a home. It takes an integrated system of components and layers designed to perform in three critical areas. The Owens Corning® Total Protection Roofing System® gives you the assurance that all of your Owens Corning® roofing components are working together to help increase the performance of your roof.

PROTECCIÓN TOTAL SIMPLIFICADA®

Se necesita más que simplemente tejas para proteger su vivienda. Se necesita un sistema integral de componentes y capas diseñadas para desempeñarse en tres áreas críticas. El Total Protection Roofing System® de Owens Corning® le garantiza que todos sus componentes para cubiertas de Owens Corning® funcionan en conjunto para mejorar el desempeño de su techo.

SEAL.

Helps create a waterproof barrier

Ayuda a crear una barrera impermeable

DEFEND.

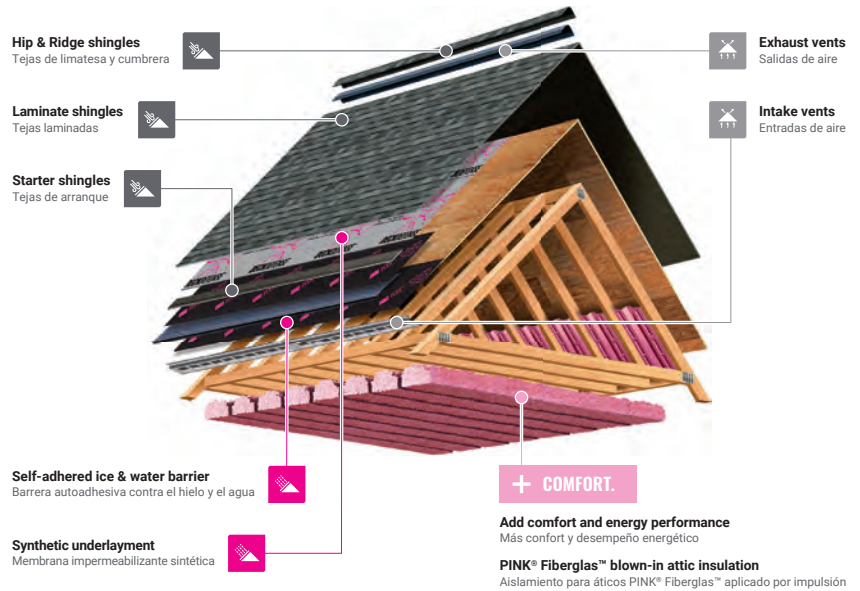
Helps protect against nature's elements

Protege contra los elementos climáticos

BREATHE.

For balanced attic ventilation

Para una ventilación equilibrada del ático



REGISTER YOUR WARRANTY

Registering your Owens Corning® warranty ensures it's easily referenced should you ever need to access it. The process is easy—just have your installation date, shingle type, shingle color and number of squares ready. Then go online to www.owenscorning.com/roofingstandardwarranty or call 1-800-ROOFING (1-800-766-3464) to finish the process.



**SCAN TO REGISTER
YOUR WARRANTY**

Escanee para registrar
su garantía

REGISTRE SU GARANTÍA

Al registrar su garantía de Owens Corning® la podrá consultar rápidamente si fuera necesario acceder a ella. El proceso es simple: tenga a mano la fecha de instalación, el tipo y color de tejas y la cantidad de cuadrados. Luego, visite www.owenscorning.com/roofingstandardwarranty o llame al 1-800-ROOFING (1-800-766-3464) para completar el proceso.



Product Attributes

Warranty Length*

Limited Lifetime†
(for as long as you own your home)

Wind Resistance Limited Warranty*

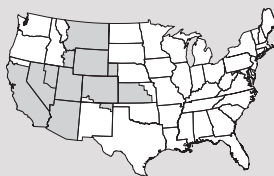
130-MPH

Algae Resistance Limited Warranty*§

25 Years

TRU PROtection® Non-Prorated Limited Warranty* Period

10 Years



Algae resistance
available in areas
shown in white.

Características del producto

Período de garantía*

Garantía limitada de por vida†
(mientras sea propietario de la vivienda)

Garantía limitada de resistencia al viento*

210 km/h (130 mph)

Garantía limitada de resistencia a las algas*§

25 años

Período no prorrateado de garantía limitada TRU PROtection®

10 años



Las tejas resistentes
a las algas están
disponibles en las áreas
marcadas en blanco.

TruDefinition® Duration® Shingles Product Specifications

Size	13¼" x 39¾"
Application Exposure	5%"
Shingles per Bundle	Not less than 20
Average Shingle Count per 3 Bundles	64
Average Coverage per 3 Bundles	98.4 sq. ft.

Applicable Standards and Codes

ASTM D3462

ASTM D228

ASTM D3018 (Type 1)

ICC-ES AC438#

ASTM D3161 (Class F Wind Resistance)

ASTM D7158 (Class H Wind Resistance)

ASTM E108/UL 790 (Class A Fire Resistance)

PRI ER 1378E01

Especificaciones de las tejas Duration® TruDefinition®

Tamaño	33.65 x 100 cm (13¼ x 39¾ pulg)
Exposición de aplicación	14.3 cm (5% pulg)
Tejas por paquete	20 como mínimo
Cantidad promedio de tejas por 3 paquetes	64
Cobertura promedio por 3 paquetes	9.14 m² (98.4 pies²)

Normas y códigos pertinentes

ASTM D3462

ASTM D228

ASTM D3018 (Tipo 1)

ICC-ES AC438#

ASTM D3161 (Resistencia al viento, Clase F)

ASTM D7158 (Resistencia al viento Clase H)

ASTM E108/UL 790 (Resistencia al fuego Clase A)

PRI ER 1378E01

* See actual warranty for complete details, limitations and requirements.

† 40-Year Limited Warranty on commercial projects.

† Owens Corning testing against competing products with wide, single-layer nailing zones when following manufacturers' installation instructions and nailing in the middle of the allowable nailing zone.

** Tru-Bond® is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing® and Asphalt, LLC.

+ The amount of Triple Layer Protection® may vary on shingle-to-shingle basis.

International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.

1 See Color Disclaimer information on page 3 for additional details.

3 Shingles are algae resistant to control the growth of algae and discoloration.
StreakGuard® Algae Resistance Technology is not available in the Compton and Denver service area.

§ This coverage is effective 1/1/2023; Installation must include use of an Owens Corning® Hip & Ridge product. See actual warranty for details.

5 Owens Corning® Midnight Plum shingle includes a patent pending design.

For Patent information, please visit owenscorning.com/patents.

SureNail® Technology is not a guarantee of performance in all weather conditions.

* Consulte la garantía para obtener una lista completa de detalles, limitaciones y requisitos.

† Garantía limitada de 40 años para proyectos comerciales.

† Ensayos comparativos de Owens Corning con productos de la competencia con zonas de clavado ancho de una sola capa cuando se siguen las instrucciones de instalación del fabricante y se clava en el medio de la zona de clavado permitida.

** Tru-Bond® es un sellador asfáltico patentado de calidad premium formulado por Owens Corning Roofing® and Asphalt, LLC.

+ La cantidad de Triple Layer Protection® puede variar entre una teja y otra.

Criterios de aceptación de los servicios de evaluación del Consejo Internacional de Códigos para tejas asfálticas alternativas.

^ Se excluyen productos para techos no fabricados por Owens Corning®, como tapajuntas, sujetadores, bases de tubos y estructuras de soporte de madera.

1 Para obtener más información, consulte el Descargo de responsabilidad sobre los colores, en la página 3.

3 Las tejas son resistentes a las algas para controlar su desarrollo y la decoloración.

La tecnología resistente a las algas StreakGuard® no está disponible en las áreas de distribución de Compton y Denver.

§ Esta cobertura entra en vigor el 1 de enero de 2023; la instalación debe incluir el uso de un producto para limatesa y cumbre de Owens Corning®.

5 La teja Owens Corning® Midnight Plum incluye un diseño con patente pendiente.

Para información sobre la patente, visite www.owenscorning.com/patents.

La tecnología SureNail® no es una garantía de desempeño en todos los tipos de condiciones climáticas.



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File R27307
Project 11CA64505

January 24, 2012

REPORT

on

Metal Roof Deck Panels
For
Wind Uplift Resistance

Under The

CLASSIFICATION PROGRAM

COATED METALS GROUP
VERONA, WI 53593

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DESCRIPTION

PRODUCT COVERED:

The products covered by this Report are metal roof deck panels designated "Ultra-Snap 1.75SL", "Ultra-Seam 2MS" or "Ultra-Seam 1.5MS" panels.

The products in this Report are Classified as to uplift resistance, only.

USE:

The products are intended for use as building materials as permitted by authorities having jurisdiction.

TEST RECORD NO. 1

SAMPLE:

Classified metal roof deck panels designated "Ultra-Snap 1.75SL", "Ultra-Seam 2MS" or "Ultra-Seam 1.5MS".

STUDY FOR CLASSIFICATION PURPOSES:

Testing of the metal roof deck panels designated "Ultra-Snap 1.75SL", "Ultra-Seam 2MS" or "Ultra-Seam 1.5MS" for use in Uplift Resistance was not considered necessary based upon previous test experience on similar products as documented internally in Test Reference No. 1.

TEST RECORD 1 SUMMARY:

The results of this investigation indicate that the metal panels evaluated in this test record comply with applicable requirements, and therefore, are judged to be eligible for Classification under the Laboratories product categories of Uplift Resistance (TJPV).

Standard	Title	Edition or Publication Date	Latest Revision Date
UL 580	Tests for Uplift Resistance of Roof Assemblies	Fifth	November 2, 2006

The Classification Mark for the TJPV category (UL 580) to be used on the "Ultra-Snap 1.75SL" panels is illustrated below:

METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS 90
AS SHOWN BY CONSTRUCTION NO. 343
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY

The Classification Mark for the TJPV category (UL 580) to be used on the "Ultra-Seam 2MS" panels is illustrated below:

METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS 90
AS SHOWN BY CONSTRUCTION NO. 176
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY

The Classification Mark for the TJPV category (UL 580) to be used on the "Ultra-Seam 1.5MS" panels is illustrated below:

METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS 90
AS SHOWN BY CONSTRUCTION NO. 554
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY

Test Record 1 by:



JUDITH G. MARZULLO
Lead Engineering Associate
Fire Protection Division

Reviewed by:



KENNETH RHODES
Senior Staff Engineer
Fire Protection Division

TEST RECORD NO. 2

SAMPLE:

Classified metal roof deck panels designated panel.

STUDY FOR CLASSIFICATION PURPOSES:

Testing of the metal roof deck panels designated "Ultra-Snap SL", in accordance with UL 790 and UL 2218 was not considered necessary based upon previous test experience on similar products as documented internally in Test Reference No. 1.

TEST RECORD 1 SUMMARY:

The results of this investigation indicate that the metal panels evaluated in this test record comply with applicable requirements, and therefore, are judged to be eligible for Classification under the Laboratories product categories of Impact Resistance (TGAM) and Roofing Systems (TGFU).

Standard	Title	Edition or Publication Date	Latest Revision Date
UL 790	Standard Test Method for Fire Tests of Roof Coverings	Eight	October 7, 2008
UL 2218	Standard for Impact Resistance of Prepared Roof Covering Materials	Second	January 25, 2010

The Classification Marking to be used on the metal roof deck panels is illustrated below:

BUILDING UNITS
FOR ROOFING SYSTEMS
AS TO AN EXTERNAL FIRE EXPOSURE

The following Classification Marking for TGAM is optional:

ALSO CLASSIFIED AS TO IMPACT RESISTANCE, CLASS 4

OTHER SYSTEMS

Formed steel panels, designated "Ultra-Snap SL".

Class A

1. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Underlayment: - One layer "VersaShield Underlayment", mechanically fastened.
Ply Sheet: - One layer Type 30 base sheet or "VersaShield", mechanically fastened.
Shingles or Panels: - "Ultra-Snap 1.75SL".
2. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Insulation: - Rmax "Ultramax" 1 in. min, mechanically fastened.
Panels: - "Ultra-Snap 1.75SL".
3. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Underlayment: - One or more plies "VersaShield Underlayment", mechanically fastened.
Panels: - "Ultra-Snap 1.75SL".
4. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Underlayment: - One layer "VersaShield Underlayment", mechanically fastened.
Ply Sheet: - One layer Type 30 base sheet or "VersaShield", mechanically fastened.
Shingles or Panels: - "Ultra-Snap 1.75SL".
5. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Insulation: - Rmax "Ultramax" 1 in. min, mechanically fastened.
Panels: - "Ultra-Snap 1.75SL".
6. Deck: C-15/32 or spaced sheathing Incline: Impact: Class 4
Unlimited
Underlayment: - One or more plies "VersaShield Underlayment", mechanically fastened.
Panels: - "Ultra-Snap 1.75SL".

One or more layers of Elk Corp. "VersaShield Underlayment," mechanically fastened, may be used in lieu of the Barrier Board in all combustible Classifications.

7. Deck: C-15/32 Incline: Unlimited Impact: Class 4
Barrier Board: - 1/4 in. min. Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck DuraGuard™ Roofboard", CertainTeed Gypsum GlasRoc or USG "SECUROCK®" Glass Mat Board with all joints staggered a min of 6 in. from the deck joints.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace "Ice and Water Shield".
Surfacing: - "Ultra-Snap 1.75SL".
8. Deck: NC Incline: Unlimited Impact: Class 4
Barrier Board: - 1/4 in. min. Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck DuraGuard™ Roofboard", CertainTeed Gypsum GlasRoc or USG "SECUROCK®" Glass Mat Board.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace "Ice and Water Shield".
Surfacing: - "Ultra-Snap 1.75SL".
9. Deck: NC Incline: Unlimited Impact: Class 4
Barrier Board: - 7/16 OBS or 5/8 in. plywood over polyisocyanurate insulation board or polyisocyanurate composite board, any thickness.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace "Ice and Water Shield".
Surfacing: - "Ultra-Snap 1.75SL".
10. Deck: NC Incline: Unlimited Impact: Class 4
Insulation: - Polyisocyanurate, glass fiber, perlite or wood fiber, any thickness.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace "Ice and Water Shield".
Surfacing: - "Ultra-Snap 1.75SL".
11. Deck: NC Incline: Unlimited Impact: Class 4
Insulation (Optional): - Any UL Classified insulations may be used over open purlin spans. Any combination and any total thickness of insulation may be used.
Surfacing: - "Ultra-Snap 1.75SL".
12. Deck: C-15/32 Incline: Unlimited Impact: Class 4
Barrier Board: - 1/4 in. min. Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck Prime® Roofboard" or "DensDeck DuraGuard™ Roofboard", CertainTeed Gypsum GlasRoc or USG "SECUROCK®" Glass Mat Board with all joints staggered a min of 6 in. from the deck joints.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or WR Grace "Ice and Water Shield".
Surfacing: - "Ultra-Snap 1.75SL".

Class C

1. Deck: C-15/32 Incline: Unlimited Impact: Class 4
 Surfacing: - "Ultra-Snap 1.75SL".
2. Deck: C-15/32 Incline: Unlimited Impact: Class 4
 Underlayment: - Any UL Classified base/ply sheet.
 Surfacing: "Ultra-Snap 1.75SL".

Test Record 1 by:

Daniel Powers
Lead Engineering Associate
Fire Protection Division

Reviewed by:

Alpesh Patel
Staff Engineer
Fire Protection Division

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CONCLUSION:

Samples of the products covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the samples investigated by UL and does not signify the products described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Classification Mark on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of Underwriters Laboratories Inc. The Classification Mark of Underwriters Laboratories Inc. on the product, or the UL symbol on the product and the Classification Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Classification and Follow-Up Service.

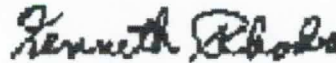
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