



Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners: Affordable ~ Thorough ~ Versatile ~ Capable

Serving the Portland Metro area and all of Oregon: (503) 654-4612

Oregon CCB: 199121 ~ WA Lic: OREGORC871MR

PO Box 220190, Milwaukie, OR 97222

Resume' ~ Track Record ~ Experience ~ Qualifications ~ History

Please note : I have 42 years of legitimate verifiable experience as a laborer / grunt / gopher, the better part of 3 decades as a roofer, 6 years as an estimator / project manager for 2 large roofing companies and am now well in to my 9th year as the owner / operator of Oregon Roof Consulting and Inspection. I have personally installed over 1,000 roofs and have done at least 14,000 roofing estimates back in the roofing days. Oregon Roof Consulting has participated in 5 courtroom hearings and 16 arbitration hearings in Oregon and Washington and 19 on site CCB mediation meetings in Oregon -- all as an expert witness, so, we are a bit familiar with the roofing trade.

I have done work for but not limited to : Homeowners; Businesses and corporations of all sizes; Insurance companies; Banks; Churches; Relocation companies; Roofing contractors; Investment groups; HOA's; Apartment complexes of all sizes; The State of Oregon; Multiple school districts including West Linn; David Douglass; and every elementary, middle, and high school in both Hood River and Wasco (The Dalles) counties; United States Coast Guard in Astoria; etc. I have done jobs all over Oregon and Washington; All over the San Francisco Bay Area including San Francisco, Oakland, Napa, Richmond, Alameda, Fremont, Pleasanton, Berkeley, Fresno, Sacramento and Reno Nevada. This is all on my website. See

www.oregonroofconsulting.com

Thank you,

Owner of Oregon Roof Consulting & Inspection

Oregon Roof Consulting and Inspection No-Nonsense Roofing Advice for Property Owners



- Affordable ~ Thorough ~ Versatile ~ Capable
- Roofing in Oregon Since 1973
- Project Management & Monitoring
- Inspections ~ Certifications ~ Owner Advocacy

www.oregonroofconsulting.com

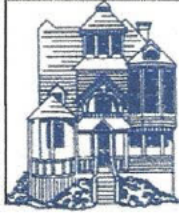
Phone: (503) 654-4612 Cell: (503) 952-6479

Email: joe@oregonroofconsulting.com

PO 220190 Milwaukie, OR 97222

CCB 199121 ~ WA OREGORC871MR

Joe Sardotz, Owner Operator



Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners: Affordable ~ Thorough ~ Versatile ~ Capable

Serving the Portland Metro area and all of Oregon: (503) 654-4612

Oregon CCB: 199121 ~ WA Lic: OREGORC871MR

PO Box 220190, Milwaukie, OR 97222

Roof Inspection for : [REDACTED]

I inspected this roof on September 4th, 2021. We spent 2 hours onsite. We got on the roof. We looked in the attic. The roof is a new Owens Corning 'Oakridge' asphalt laminated shingle in the medium gray color. Separate photo emails will be sent. Each will be numbered to correspond to the numbered items on the summary report. The following items should be noted :

1. As always we check the fastening. **See attached Owens Corning fastening attachments. We pulled nails from the main roof body not overhangs. All nails on side shed and lower roof sections in front are 3/4" long. These are too short and do not meet code and any manufacturer deck penetration requirements, Up on the main roof we looked at about 60 random nails. About 70% were the correct 1-1/4" and the rest were 3/4" which do not meet minimum deck penetration requirements. Most nails were over driven and some – not many - were under driven. Most nails were well above the factory embossed nailing line. Nails must be on this line as that is the strongest part of the shingle where the 'blank' and 'sawtooth' overlap. Proper fastening is crucial. ** See photos and Owens Corning attachments.
2. Contract calls for replacement of sidewall flashings "where required". Not sure what "where required" means. No code or manufacturer specs require replacement of these however the **industry standard** is to always replace these. I have been involved with many thousands of roofs in and have never seen the existing tin shingles / step flashings re used. Never.
3. Contract calls for flashing at all eaves and gables. There is no eave drip flashing at the upper front dormer. See photos.
4. At the bottom of any sidewall where shingles meet siding code requires a diverter / kickout flashing. There are no kickout flashings. See photos.
5. Contract calls for "24 inch painted metal valleys". There is no 24" painted 'W' valley metal anywhere on this roof. See photos.
6. Attic vents are not centered over the holes in deck therefore these vents are not functioning at full capacity / capability. ** There are not enough attic vents. The 1 in 150 rule says that for every 150 sq ft of attic floor space there must be 1 sq ft of venting. This especially important considering item #7 below.

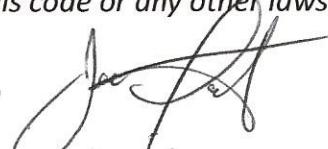
7. The attic is not continuous end to end. There is a wall in the center that divides the attic in to 2 sections. There is an access hatch to the north half but there is no access hatch to the south half. The two bathrooms and their 2 utility vent fans are under the south half with no access hatch. Code requires that mechanically vented air be vented outdoors. Typically utility fans are connected to their own stem-baffle-flapper vent. There are no stem vents on this roof. None. So, either the 2 utility fans are venting into the attic which is a huge negative (or) there is a rigid or flexible tube connected to the round outlet of these utility fans / vents that go up to the attic vents. It is either one or the other. If the tubes are venting out of an attic vent then those attic vents are not included in the attic ventilation scenario. These 2 utility vents should be connected to their own stem vents for proper discharge of mechanically vented air which is a code requirement.
8. Contract calls for a magnetic nail sweep. There are many many dozens of nails all over the place including the concrete pathways all around the house.

Conclusion : There are many violations of the Oregon Residential Specialty Code chapter 9 'Roof Assemblies', Owens Corning nailing requirements, and 'industry standards' (how the professionals do it). All shingle manufacturers provide online installation videos, technical manuals, and online printed installation instructions. These are all easy to access. All manufacturers have a significant amount of installation instructions – including fastening – on all shingle bundle wrappers. It would be wise for any contractor to follow and abide by the contract that **they** write.

It is any Contractor's responsibility, obligation, and requirement to 1) Know how a roof system should be installed. 2) Install that roof system correctly.

*** The Oregon Residential Specialty Code R102.7.1 : 'Additions, alterations or repairs (excluding ordinary repairs) to any structure shall conform to the requirements for a new structure without requiring an existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs **shall not cause an existing structure to become unsafe or adversely affect the performance of the building.....**'. R905.1 : 'Roof coverings shall be applied in accordance with the applicable provisions of this section and manufacturers installation instructions'. R903.1 : ' Roof Assemblies shall be designed and installed in accordance with this code and the approved manufacturers instructions such that **the roof assembly shall serve to protect the building or structure** '. R105.2 : 'Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in a manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction'. ***

Thank you,



Owner of Oregon Roof Consulting & Inspection

****This document carries no warranty or guarantee. It is an opinion based on industry standards, manufacturers specifications, local codes and my experience****

Application Instructions

Before installing this product, check local building codes for their roofing requirements.

These shingles are designed for new or re-roofing work over any properly built and supported wood roof deck having adequate nail holding capacity and a smooth surface. Check local building codes.

Precautionary Note:

The manufacturer will not be responsible for problems resulting from any deviation from the recommended application instructions and the following precautions:

Roof Top Loading: Lay shingle bundles flat. Do not bend over the ridge.

Roof Deck: • 6" Minimum roof deck boards • Minimum 3/8" plywood • Minimum 7/16" OSB

Regardless of deck type used, the roofing installer must:

1. Install the deck material in strict compliance with the deck manufacturer's instructions.
2. Prevent the deck from getting wet before, during and after installation.

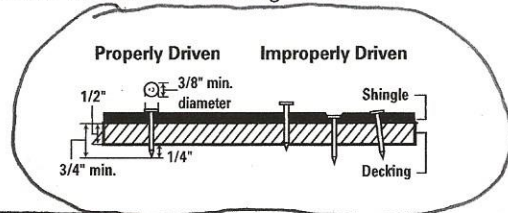
Eave Flashing: Use Owens Corning® self-sealing ice and water barrier on the eaves in all regions of the country where roofs are susceptible to leaks from ice and water backup.

Ventilation: Must meet local building codes.

Handling: Use extra care in handling shingles when the temperature is below 40°F.

Storage: Store in a covered ventilated area at a maximum temperature of 110°F. Bundles should be stacked flat. Protect shingles from weather when stored at the job site. Do not store near steam pipes, radiators, etc.

Fastener requirement: Use galvanized steel, stainless steel, or aluminum nails minimum 12 gauge shank with 3/8" diameter head. Owens Corning Roofing recommends that fasteners comply with ASTM F 1667. Check local building codes.



All Fasteners must penetrate at least 3/4" into the wood deck or completely through sheathing.

Notice: Owens Corning Roofing recommends the use of nails as the preferred method of attaching shingles to wood decking or other nailable surface.

ITEM #1 ON SUMMARY

CAUTION

ROOF SURFACE MAY BE SLIPPERY: Especially when wet or icy. Use a fall protection system when installing. Wear rubber soled shoes. Walk with care.

FALLING HAZARD: Secure area below work and materials on roof. Unsecured materials may slide on roof. Place on level plane or secure to prevent sliding. Wear a hard hat.

WARNING: This product contains a chemical known to the State of California to cause cancer.

Instrucciones de aplicación

Antes de colocar este producto, verifique los códigos locales de construcción para conocer los requisitos de su techo.

Estas tejas han sido diseñadas para la construcción de techos nuevos o el arreglo de techos existentes sobre plataformas de madera correctamente construidas y que poseen una capacidad de sujeción de clavos y una superficie lisa. Consulte los códigos de construcción locales

Aviso importante:

El fabricante no se hará responsable por los problemas que surjan como consecuencia de no seguir exactamente las instrucciones de instalación recomendadas y de los siguientes avisos importantes:

Carga sobre los techos: Coloque los paquetes de tejas de manera plana sobre el techo. No los doble sobre la cumbrera.

Plataforma del techo: • 6 pulgadas de mínimo sobre la estructura base del techo • 3/8 pulg. como mínimo de madera triplay • 7/16 pulg. como mínimo para paneles de fibra orientada

Cualquiera que sea el tipo de superficie utilizada, el instalador del techo debe:

1. Instalar el material de la plataforma siguiendo estrictamente las instrucciones del fabricante.
2. Evitar que la plataforma se moje antes, durante y después de la instalación.

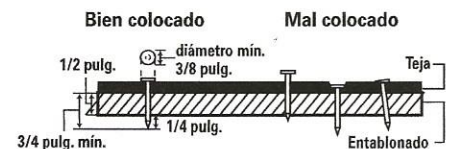
Tapajuntas para aleros: Utilice la barrera autosellante resistente al agua y al hielo de Owens Corning en los aleros de todas las regiones del país en las que los techos estén expuestos a filtraciones por causa de la acumulación de agua y hielo.

Ventilación: Debe cumplir con los códigos de construcción locales.

Uso: Tenga mucho cuidado al usar y colocar las tejas cuando la temperatura sea inferior a los 40°F.

Almacenamiento: Almacene en un área cubierta y ventilada a una temperatura que no sobrepase los 110°F/43°C. Almacenar en forma plana. Proteja las tejas del clima cuando las almacene en el lugar de trabajo. No las almacene cerca de tuberías de vapor, radiadores, etc.

Requisito de sujetador: Use clavos de acero galvanizado, acero inoxidable o de aluminio, de calibre 12 como mínimo, con un diámetro de cabeza de 3/8 pulg. Owens Corning Roofing recomienda que los sujetadores cumplan con la norma ASTM F 1667. Consulte los códigos de construcción locales.



Todos los sujetadores deben penetrar al menos 3/4 pulg. en la plataforma del techo de madera o atravesar completamente los revestimientos de madera triplay.

Aviso: Owens Corning Roofing recomienda el uso de clavos como método preferido para fijar tejas a superficies de madera u otras superficies aptas para clavos.

CUIDADO

EL TECHO PUEDE ESTAR RESBALOSO: Especialmente cuando está mojado o cubierto de hielo. Al realizar la instalación, utilice un sistema de protección contra las caídas. Utilice zapatos con suela de goma. Camine con cuidado.

PELIGRO DE CAÍDA DE OBJETOS: Asegure el área que se encuentra debajo de la zona de trabajo y los materiales que están sobre el techo. Los materiales que no estén sujetos pueden caerse del techo. Colóquelos en un lugar sin pendiente o sujételos para que no se caigan. Use un casco resistente.

ADVERTENCIA: Este producto contiene una sustancia química considerada cancerígena en el estado de California.

4 Shingle Fastening:

Place fasteners $6\frac{1}{8}$ " from bottom edge of each shingle and 1" from each end.

Standard Pattern Use four fasteners. See Fig. 4.

Six Nail Pattern Use six fasteners. See Fig. 4A.

Mansard or Steep Slope Fastening Pattern. Place fasteners $6\frac{1}{8}$ " from bottom edge to secure both layers of the shingle. See Fig. 4B.

Shingle Side View



REQUIRED: For slopes exceeding 60 degrees or 21 inches per foot, use six fasteners and four spots of asphalt roof cement per shingle. Apply immediately; one 1" diameter spot of asphalt roof cement **under** each shingle tab. Center asphalt roof cement 2" up from bottom edge of shingle tab. See Fig. 4B.

Roof Cement where required must meet ASTM D-4586 Type I or II (Asbestos Free).

Six nail fastening pattern is required for maximum wind warranty. In addition, Owens Corning® Starter Shingles are required along the eave and rake. (See Starter Shingle instructions for details.)

Fig. 4 Standard Fastening Pattern
Esquema de instalación estándar

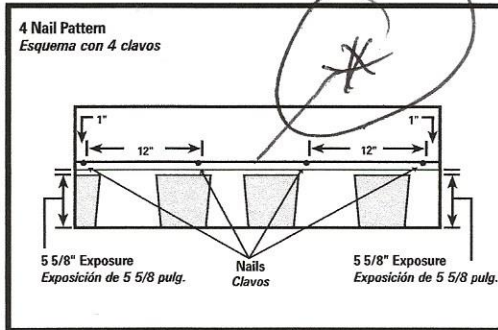


Fig. 4A Six Nail Fastening Pattern
Esquema de instalación con seis clavos

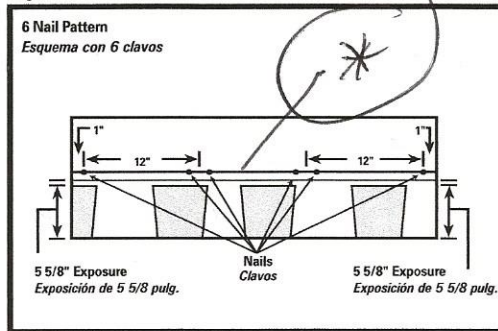
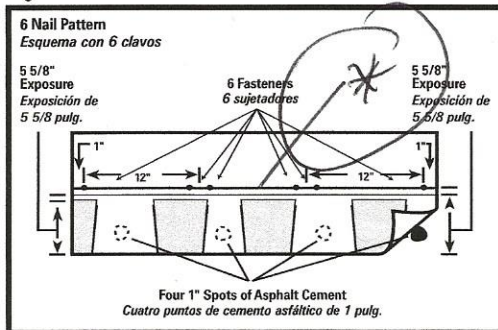


Fig. 4B Mansard or Steep Slope Fastening Pattern
Esquema de instalación en pendientes pronunciadas o mansardas



4 Sujeción de las tejas:

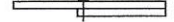
Coloque los sujetadores a $6\frac{1}{8}$ pulg. a partir del borde inferior de cada teja y a 1 pulg. de cada extremo.

Esquema estándar. Utilice cuatro sujetadores. Ver la Fig. 4.

Esquema con seis clavos. Para 6 sujetadores. Ver la Fig. 4A.

Esquema de instalación en pendientes pronunciadas o mansardas. Coloque los sujetadores a $6\frac{1}{8}$ pulg. del borde inferior para ajustar ambas capas de la teja. Ver la Fig. 4B.

Vista lateral de la teja



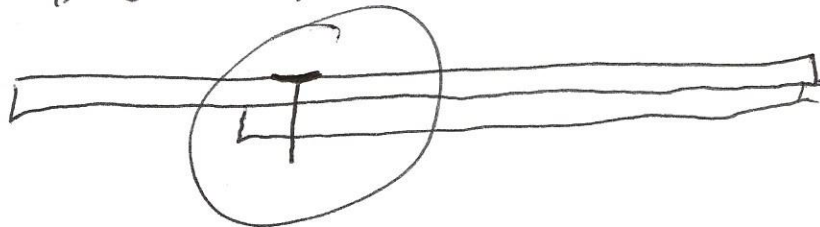
REQUISITO: Para pendientes de más de 60 grados o 21 pulg. por pie, utilice seis sujetadores y cuatro cantidades pequeñas de cemento asfaltado por teja. Instale inmediatamente una sección con 1 pulg. de diámetro de cemento asfaltado **debajo** de cada lengüeta de las tejas. Asegúrese de que el cemento asfaltado esté centrado 2 pulg. por encima del borde inferior de la lengüeta de la teja. Ver la Fig. 4B.

Cuando sea necesario utilizar **cemento para techos**, éste debe cumplir con la norma ASTM D-4586 Tipo I ó II (sin asbestos).

El esquema de fijación de seis clavos es obligatorio para la garantía máxima contra vientos. Además, es necesario instalar las tejas para la hilera inicial de Owens Corning® en las cornisas de tímpano y los aleros. (Consulte las instrucciones de las tejas para la hilera inicial para obtener información detallada.)

ITEM #1 ON SUMMARY

* = NAILING LINE



STRONGEST PART OF SHINGLE

TECHNICAL BULLETIN

PROPER USE OF PNEUMATIC COIL NAILERS

SUPERSEDES PREVIOUS BULLETINS

Issue Description:

The proper use of pneumatic coil nailers for the installation of asphalt shingles.

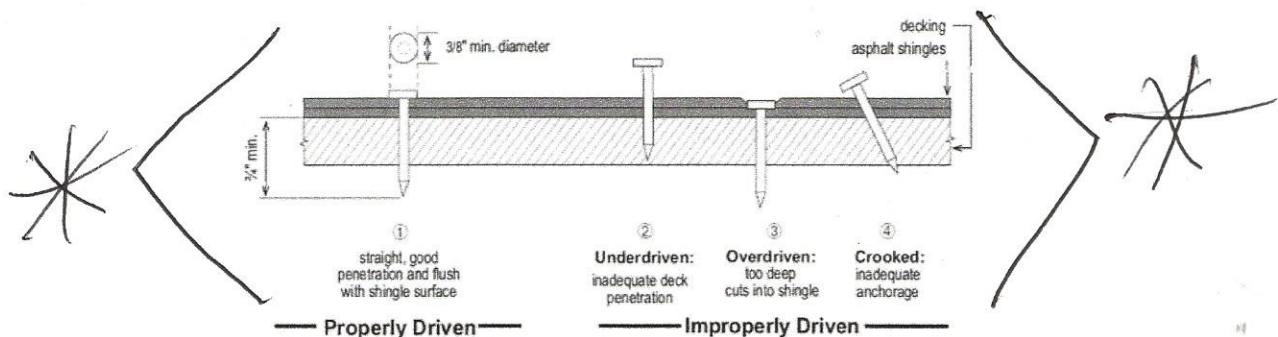
Recommendations:

Proper setup and use of pneumatic coil nailers is critical for correct installation of Owens Corning® asphalt shingles. Improper use of pneumatic coil nailers may lead to shingle damage and/or shingle failures during a high-wind event. Ensuring proper nail gun setup will:

- Prevent over-driving the nails, which can cause the nail head to blow through the shingle.
- Prevent under-driving the nails, which can prevent shingles from laying flat and sealing properly.

Key Considerations:

- Use regulated compressed air and never apply more air pressure than is necessary to properly drive the fasteners.
- Most pneumatic coil nailers operate at optimum efficiency when the pressure is set between 80 and 95 psi.
- Most coil nailers are equipped with a depth adjustment knob. Adjust the settings for the nail heads to be driven flush.
- The startup and cutout pressures on the compressor should be set to maintain optimum operating pressure in the compressor tank at all times.
- Air hose length and diameter should be considered when setting psi at regulator.
- Operating more than one coil nail gun from a single compressor may affect how well the fasteners penetrate the shingles.
- Use corrosion resistant 11 or 12-gauge nails with a minimum 3/8-inch diameter heads, complying with ASTM F1667.
- Unusually cold or hot temperatures may require additional tuning of the compressor for optimum nail driving performance.
- Always read and be familiar with the operating instructions for the compressor and nail gun.
- When using pneumatic coil nailers, **always ensure that the nail is driven flat and flush with the shingle.**
- **Any shingle into which an overdriven fastener has been installed must be repaired by either replacing the shingle or covering the fastener with asphalt roofing cement and installing an additional fastener within 1-inch of the overdriven fastener.**



Please contact 419-248-6557 for additional information.
Email: gettech@owenscorning.com

Disclaimer of Liability

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Owens Corning makes no representation about, and is not responsible or liable for the accuracy or reliability of data associated with particular uses of any product described herein.



OWENS CORNING SCIENCE AND TECHNOLOGY, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO 43659
1-800-GET-PINK®
www.owenscorning.com