

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 for my brother's roofing business in the 60's, the better part of 3 decades as a roofing contractor, 6 years as an estimator / project manager for 2 large roofing companies and am now nearing the end of 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 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. We have also helped with two shingle roofing projects on the remote South Pacific island of Rarotonga (Cook Islands). This is all on my website. See www.oregonroofconsulting.com

Thank you,

Owner of Oregon Roof Consulting & Inspection

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- 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

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Joe Sardotz, Owner Operator



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Roof Inspection for : [REDACTED]

Job Address : [REDACTED] Hillsboro, Oregon 97124

I inspected this roof on October 7th 2021 at 1 PM. The roof is a new Owens Corning laminated asphalt shingle in the light gray color. One layer over plywood and OSB. The roof is about 75 - 80% completed. Separate photo emails will be sent. Each will be numbered to correspond with the numbered items on the summary. The following items should be noted :

1. At the open overhang near the front entry CDX plywood was used as replacement. The rest of the house has plywood with one good side at all open overhangs. This is the industry standard. AC or CCPTS plywood should have been used here. This is not a code requirement however it is the 'industry standard'. See photo.
2. At the bottom of any sidewall code and all shingle manufacturers require a 'kickout' or 'diverter' flashing. This was not done. See photo.
3. Valley metal, rake metal, drip metal, 4" stem vent all new black metal. Step flashings / tin shingles are the existing brown step flashings. **Contract says "install new color matching flashing at roof to wall intersection". I am certainly no lawyer but I believe the legal term for this is 'breach of contract'. **See photo.
4. The synthetic underlayment paper is fastened with A-11 staples which is OK if that area will be covered the same day. Paper that is left exposed for extended periods of time should be fastened with 'cap nails' which have much more holding power than A-11 staples. A-11 staples tend to tear the paper creating holes which will leak. In the front an area of paper has come up and the plywood is now exposed to the weather. When it rains it will leak here. **See photo.
5. As always I lift shingles to check for proper fastening. At some areas of the roof I could not lift shingles because the factory sealant had been activated. However, there are many areas of the roof that get little if any direct sun so I was able to lift about 70 shingles at random areas and view about 280 nails+-. About 80% of these nails are over driven. Some angle driven. Nails are not applied / spaced evenly per Owens Corning instructions. **See 3 Owens Corning attachments regarding proper nailing. **See photos.

6. Contract says "install 2 feet of ice & water leak barrier at drip edge and rake (rake) edge." At the long exposed rake edge in front there is synthetic underlayment but no ice & water barrier. The ice and water is applied directly to the plywood deck. Then the paper goes on top. The paper here was secured with staples so I got the impression that ice & water would not be applied here. ****Whoever you hire to finish this roof have them check ALL rake and drip edges to see if there is ice & water barrier installed per contract. IMPORTANT.**
7. This roof project began on Labor Day. As of October 7th the job is not done. It is about 75-80% complete. A roof like this typically takes 2-3 days.

Conclusion : There are items on the contract that do not match up with what is on the roof. It is always a good idea to abide by the contract that (you) write. The nailing is not close to manufacturer instructions / specifications therefore not to code. With many thousands of nails on this roof a few bad nails are expected but 80% is a different story altogether. ****See 3 attached Owens Corning documents.**

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****

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DESCRIPTION	QTY.	UNIT PRICE (\$)	AMOUNT (\$)
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Roofing replacement	22	330.00	7,260.00
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- Roofing replacement
- Remove (1) layer of existing roof to sheathing..
- Additional unforeseen layers of roofing abject to additional charge of 59\$ per sq..
- Inspect roof deck for defect and dry rot..
- replace up to 2 sheet of 1/2 cdx plywood including on total price
- addition defective roof sheeting replace at 100\$ / each sheet
- furnish and install (Owens Corning) (color Costumer decision)
- furnish and install synthetic felt over existing roof deck
- furnish and install new color matching enamel roof flashing at all drip edges, roof penetrecion roof edge termination, and roof to wall intersection.

ITEM #3 ON SUMMARY

- furnish and install high profile ridge cap
- furnish and install ridge vent ventilation system
- furnish and install metal stem vents for bathroom,hood range ventilation
- furnish and install ice&water lear barrier to all roof penetration
- furnish and install 2 feet of ice&water leak barrier around drip edge and rack edge
- furnish and install ultimate lifetime warranty pipe flashing
- clean gutters and down spot
- clean all around property and walk macnic
- remove and haul away roofing debris

ITEM #6 ON SUMMARY

B. —As provided for above , property owner shall provide his signature and the date of approval for any additional options selected by property owner.

Additional project plans or materials necessary to complete the project can be found on exhibit A if necessary. property owner agrees that roof rafters we'll be replaced at \$10.00 each gable boards ,facial boards we'll be replaced at \$5.00 per linear feet



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.

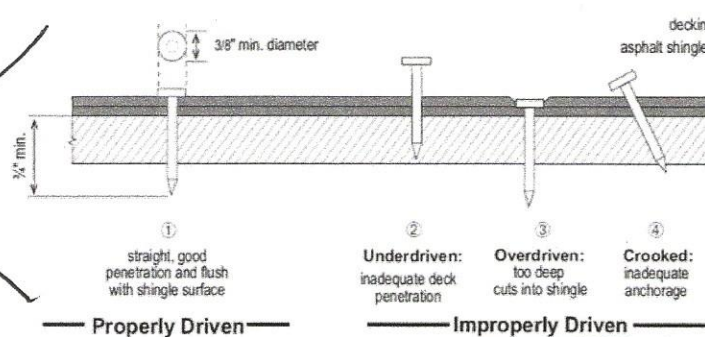
Recommendations:

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

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4 Shingle Fastening Pattern:
Place fasteners 6 1/8 inch up from bottom edge of each shingle and 1 inch from each end.

Standard Fastening Pattern

Use four fasteners. See Fig. 4.

Six Nail Fastening Pattern

For 6 nail fastening pattern. See Fig. 4A.

Mansard or Steep Slope Fastening Pattern

Place fasteners 6 1/8 inches from bottom edge to secure both layers of the shingle. Fasteners need to be located 6 1/8 inch above the butt edge of the shingle, regardless of whether they are in the granules or the SureNail® Technology fastening area. See Fig. 4B.



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 inch diameter spot of asphalt roof cement under each shingle tab. Center asphalt roof cement 2 inches up from bottom edge of shingle tab. See Fig. 4B.

Asphalt Roof Cement where required must meet ASTM D4586 Type I or II (Asbestos Free). **Note: Please be aware that excessive amounts of asphalt roof cement could blister the shingle.**

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

Fig. 4 Standard Fastening Pattern
Esquema de instalación estándar

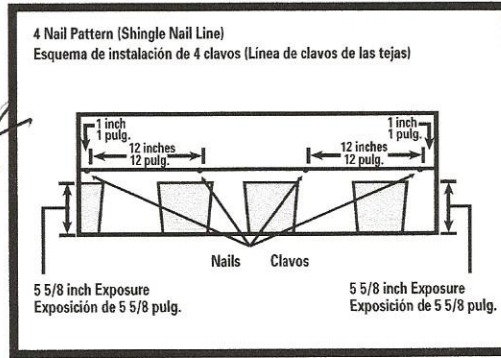


Fig. 4A Six Nail Fastening Pattern
Esquema de instalación con seis clavos

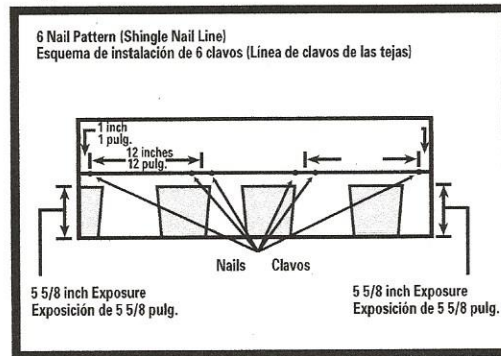
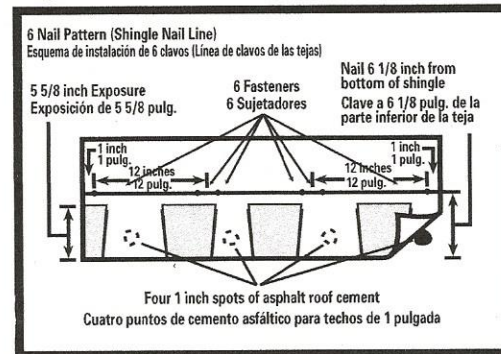


Fig. 4B Mansard or Steep Slope Fastening Pattern
Esquema de instalación en pendientes pronunciadas o mansardas



4 Patrón de fijación de tejas:
Coloque sujetadores a 6 1/8 pulgadas del borde inferior de cada teja y a 1 pulgada de cada extremo.

Patrón de fijación estándar

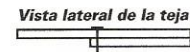
Utilice cuatro sujetadores. Ver la Fig. 4.

Patrón de fijación con seis clavos

Para un patrón de fijación con seis clavos. Ver fig. 4A.

Patrón de fijación para buhardilla o pendiente pronunciada

Coloque las piezas de fijación a 6 1/8 pulgadas (15,55 cm) del borde inferior para fijar las dos capas de la teja. Es imprescindible que las piezas de fijación se encuentren 6 1/8 pulgadas (15,55 cm) por encima del borde inferior de la teja, aunque queden sobre los gránulos o en el área de fijación de la tecnología SureNail®. Ver fig. 4B.



REQUISITOS: En el caso de las pendientes que superen los 60 grados o 21 pulgadas por pie, utilice seis sujetadores y cuatro puntos de cemento asfáltico para techos por teja. Aplique inmediatamente un punto de cemento asfáltico para techos de 1 pulgada de diámetro debajo de cada lengüeta de las tejas. Coloque el cemento asfáltico para techos a 2 pulgadas del borde inferior de la lengüeta de la teja. Ver la Fig. 4B.

En los casos en que se requiera, el cemento para techos debe cumplir con la norma ASTM D4586 Tipo I o II (libre de asbesto).

El esquema de fijación de seis clavos es obligatorio para la máxima arantía contra vientos. Además, es necesario instalar las tejas para la hilera inicial de Owens Corning® a lo largo de los aleros y las cornisas. Para obtener más información, consulte las instrucciones de instalación de las tejas para la hilera inicial.

5 Shingle Application:

These shingles are applied with a 6 1/2 inch offset, with 5 5/8 inch exposure, over prepared roof deck, starting at the bottom of the roof and working across and up. This will blend shingles from one bundle into the next and minimize any normal shade variation. Application with offsets of 4 inches or 8 inches are also acceptable.

Caution must be exercised to assure that end joints are no closer than 2 inches from fastener in the shingle below and that side laps are no less than 4 inches in succeeding courses. Refer to course application steps for specific instructions.

(continued on next page)

5 Instalación de tejas:

Estas tejas se instalan con un desplazamiento de 6 1/2 pulgadas y un área expuesta de 5 5/8 pulgadas, sobre estructuras base de techos preparados, comenzando en la parte inferior del techo y realizando la aplicación de forma transversal y hacia arriba. De esta manera, las tejas de un paquete se mezclarán con las del siguiente y se reducirán al mínimo las variaciones normales de tonalidad. Las aplicaciones con desplazamientos de 4 u 8 pulgadas también son aceptables.

Es necesario tener cuidado para garantizar que las uniones de los extremos no queden a menos de 2 pulgadas del sujetador de la siguiente teja y que las superposiciones laterales no sean de menos de 4 pulgadas en las hileras siguientes. Consulte las instrucciones específicas para la aplicación de hileras.

(continúa en la página siguiente)

CAUTION: Do not mix bundles with different plant locations. See side of bundle.

Application Instructions

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

These shingles are designed for new or reroofing work over any properly built and supported wood roof deck having adequate nail holding capacity and a smooth surface. Must comply with local building codes.

Precautionary Note:

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

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

Roof Deck: Minimum 6 inch roof deck boards, minimum 3/8 inch plywood, minimum 7/16 inch OSB, sheathing placed minimum 1/8 inch and maximum 1/4 inch.

Regardless of deck type used, the roofing installer must:

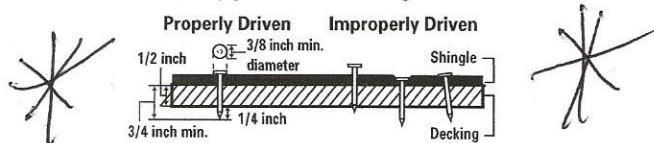
1. Install the deck material in strict compliance with the deck manufacturer's instructions.
2. Prevent the wood deck from getting wet before, during and after installation.

Ventilation: Must comply with 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 inch diameter head. Owens Corning Roofing recommends that fasteners comply with ASTM F1667. Must comply with local building codes.



All Fasteners must penetrate at least 3/4 inch into the wood deck or completely through the deck by a minimum of 1/4 inch.

Notice: Owens Corning Roofing requires the use of nails as the preferred method of attaching shingles to wood decking.

PRECAUCIÓN: No mezcle paquetes que provengan de diferentes plantas. Consulte la parte lateral del paquete.

Instrucciones para la instalación

Antes de instalar este producto, verifique los códigos de construcción locales para saber cuáles son los requisitos del techo.

Estas tejas están diseñadas para trabajos de techado nuevo o para la reconstrucción de un techo antiguo que posea una plataforma de madera adecuada, con capacidad para sostener clavos y con una superficie lisa.

Consulte los códigos de construcción locales.

Nota de precaución:

El fabricante no se hará responsable por los problemas que puedan resultar de cualquier desviación de las instrucciones para la instalación de las tejas y de las siguientes notas de precaución:

Carga en los techos: Coloque los paquetes de tejas planos. No los doble sobre la cumbre.

Estructura base del techo: Placas de mínimo 6 pulg., madera contrachapada de mínimo 3/8 pulg., paneles de fibra orientada (OSB) de mínimo 7/16 pulg., revestimiento colocado de mínimo 1/8 pulg. y máximo 1/4 pulg.

Cualquiera sea el tipo de estructura base utilizada, el instalador del techo debe:

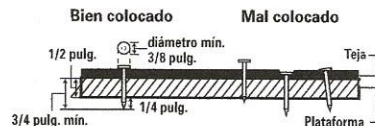
1. Instalar el material de la estructura base del techo de manera que cumpla con las instrucciones de instalación de techos del fabricante.
2. Asegurarse de que la estructura base de madera no se moje antes, durante y después de la instalación.

Ventilación: Debe cumplir con la normativa local de construcción.

Manipulación: Tenga cuidado especial con la manipulación de las tejas cuando la temperatura sea inferior a 40°F.

Almacenamiento: Conserve en un área cubierta y ventilada a una temperatura máxima de 110 °F. Los paquetes deben estar apilados sobre sus caras. 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 los sujetadores: Use clavos de acero galvanizado, acero inoxidable o aluminio, de calibre 12 como mínimo y diámetro de cabeza de 3/8 pulg. Owens Corning Roofing recomienda que los sujetadores cumplan con la norma ASTM F1667. Debe cumplir con la normativa local de construcción.



Todos los sujetadores en penetrar al menos 3/4 pulg. en la estructura de madera o atravesarla completamente un mínimo de 1/4 pulg.

Aviso: Owens Corning Roofing exige el uso de clavos como método preferido para fijar tejas a plataformas de madera.