Cedar Shake & Shingle Bureau

TECHNICAL BULLETIN

# 3-Ply Application (Premium & Number 1 Grades only) Western Red Cedar Tapersawn Shakes

## Overview

There is a marked increase in the application of tapersawn shakes using a 3-ply application. '3-ply application' is defined as having three layers of product and/or accessories at a given point in the system. Architects and consumers seek the thicker tapersawn product yet want the application to have the tailored appearance of a shingle roof with a heavier shadowline. (Please note, Tapersawn application using a 2-ply installation method, i.e. 2 layers of wood, MUST always use felt interlay).

**This is NOT currently a method approved by national building codes but MAY be accepted on an individual case basis per the local building official. Check with the local building official for more details PRIOR to beginning any project using this method of application. This bulletin is an information piece provided only in response to marketplace demand. The CSSB assumes no liability for any application non-conformance. The guidelines presented here are not intended to supercede local building code regulations.**

## Current Industry Trends

Applying a tapersawn shake in a 3-ply fashion and using a felt interlay has raised concerns regarding the trapping of moisture and the potential to shorten the life of the roof. The key discussion point is that a tapersawn shake is sawn on both sides just as a shingle, but a shingle does not use a felt interlayment system regardless of edge (vertical) or flat grain content. Building officials MAY approve eliminating felt interlayment between tapersawn shake courses when tapersawn shakes are applied at weather exposures of less than 1/3 the total length (3-ply roof). ALWAYS check with the local building official for project approval PRIOR to deviating from standard application guidelines. Check with the manufacturer for product warranty requirements.

## Specifications for 3-Ply Application with Tapersawn Shakes and No Felt Interlay

If building official approval is obtained, the following provides basic application instructions for a 3-ply application for Premium or Number 1 Grade tapersawn shakes. Consult the CSSB's New Roof Construction Manual for more details about product installation:

1) The starter course may be one or two layers of cedar shingles or tapersawn shakes overlaid with a tapersawn shake. This should be done at all eaves.
2) Butts of first course should project 1 1/2 inches beyond the fascia and approximately 1 inch over the gable or rake end.
3) Spacing should be a minimum of 3/8 inch and a maximum of 5/8 inch. (Consult CSSB for yellow cedar details).
4) Tapersawn shakes shall be laid with a side lap not less than 1 1/2 inches between joints in adjacent courses. Check with local building official for allowable deviation.
5) In Number 1 Grade tapersawn shakes, which allows both flat grain (20% maximum per bundle) and vertical grain, joints should not be aligned with the centerline of heart.


## Caution Areas

- The 3-ply application of tapersawn shakes without felt interlay is NOT an official method approved by the CSSB or building codes. ALWAYS obtain local building official approval BEFORE starting this unique type of installation.
- Shortening the exposure of the tapersawn shakes will result in more product being required
- Either spaced or solid sheathing will work with this method
- Do not attempt this method of application with Number 2 Grade tapersawn shakes
- Do not attempt this method of application on roofs with less than 4:12 slope
- Investigate product warranty implications, if considering this application method

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## Frequently Asked Questions:

**I'm working on a project and time is short. Can I save time and eliminate asking the local building official about 3-ply tapersawn shake application? Really, who will notice the absence of felt interlay once the job is completed?**

It is recommended that you consult the local building official. Tempting fate by hoping 'no one will notice' is simply not wise and is poor business practice.

**Is it possible to use the 3-ply non-felt-interlaid tapersawn shake installation method on a low slope application?**

No, even if the local building official approves the 3-ply method, a low slope application is not acceptable. When applying Premium or Number 1 Grade tapersawn shakes in a 2-Ply or 3-Ply application, the minimum slope recommended is a 4:12 slope. For more details refer to the CSSB's **New Roof Construction Manual**.

**Will the CSSB write a letter to my client stating that 3-ply tapersawn shake without felt interlayment application is acceptable?**

No. The CSSB publishes technical literature and that is the extent of its written communications. The best alternative is to ask your local building official for a written notice accepting the variance from building code.

**Can the CSSB offer any field experience results with 3-ply tapersawn shake application?**

Initial reports are that this method works well and aids in moisture management of the roofing system. However, note that no testing has been conducted or building code approval obtained on this application method. This is why the CSSB cannot recommend this installation method in its installation manuals at this time. It does, however, consider it important to present this discussion bulletin to ensure the marketplace is up to date on current developments being considered.

The information in this bulletin is not intended to supercede local building codes. Check with your local building official for final approval. The CSSB assumes no liability for any application non-conformance.

This bulletin only provides a short overview of this technical topic. For additional installation details consult:
1) CSSB's New Roof Construction Manual &
2) CSSB's Exterior and Interior Wall Manual; these are recommended reading materials.

For additional industry information:

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*Known as the recognized industry authority since 1915, the Cedar Shake and Shingle Bureau ("CSSB") is a successful, integrated and global trade association, offering a full range of services including technical assistance, building code updates, and weather resistant product details. Contact the CSSB for more information.*

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