BRAVA

TECHNICAL BULLETIN

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FIRE RESISTANCE & RATINGS

SUMMARY

This bulletin provides information on Brava roof system fire ratings and installation requirements. Brava roof systems are tested and rated individually using established test methods and standards. Brava roof systems are available in Class A and Class C configurations to meet diverse risk and regulatory requirements. Brava roof systems meet Wildland-Urban Interface (WUI) fire requirements when installed in accordance with specified fire-rated assemblies.

CONTENTS

- **ASTM E108 Fire Rating**
- **Brava One Material**
- **Brava Class A Material**
- **Fire-Resistant (FR) Underlayment**
- **Standard Underlayment**
- **Tested Assemblies**
- **Fire Rating Standards & Tests**
- **Recommended Assemblies**
- **Notes, Resources, & Questions**



ASTM E108 FIRE RATING

The ASTM E108 standard classifies roof coverings into three categories—Class A, B, and C—based on their effectiveness against varying degrees of fire exposure. This methodical approach helps manufacturers like Brava ensure their products meet rigorous safety standards, offering materials that significantly mitigate fire-related risks when applied correctly.
CLASS A FIRE RATING offers the highest level of fire resistance available. - Wildland-Urban Interface Compliant
CLASS C FIRE RATING provides basic protection against light fire exposures.

FIRE-RESISTANT (FR) UNDERLAYMENT

Fire-resistant (FR) underlayment is a protective layer installed beneath roofing materials to provide an additional barrier against fire. It is typically made of materials designed to resist high temperatures and prevent the spread of flames.

STANDARD UNDERLAYMENT

Standard underlayments, typically made from asphalt-saturated felt or synthetic polymers, serve as the primary waterproofing layer beneath the roof covering. For Brava roof systems, the minimum requirement is ASTM D226 Type II 30# asphalt-saturated felt. Self-adhered underlayments may also be used, offering enhanced adhesion and additional moisture protection.

BRAVA ONE MATERIAL

“Brava One” is a proprietary composite formulation that can be used for all Brava roof systems. This material has excelled in extensive third-party material testing to validate product performance standards under various environmental conditions. Standards include durability and resiliency against extreme temperatures, humidity, wind uplift, wind-driven rain, hail impact, UV, and fire.
CLASS C Assembly with Standard underlayment: “Brava One” roof systems are tested and rated as Class C over standard underlayments.
CLASS A Assembly with Fire-Resistant underlayment: Brava Class A systems incorporate tested fire-resistant (FR) underlayments combined with Brava One material to achieve a **Class A - Wildland-Urban Interface (WUI) Compliant Assembly**. To achieve a Class A fire rating, install the complete roof system according to a tested assembly listed in Brava’s Code Evaluation Report.†

BRAVA CLASS A MATERIAL

Due to the unique profile of Brava Spanish Barrel Tile, “Brava Class A” material is used to meet the same Class A fire rating and product performance standards. **To achieve a Class A fire-rated assembly for Brava Spanish Barrel Tile, “Brava Class A” material and a Fire-Resistant underlayment must be used.**



TESTED ASSEMBLIES

For a product to achieve its designated fire rating, it must be installed using specific product material, sheathing, and underlayment combination(s) with which it was tested. This ensures the roofing system qualifies as a tested assembly, meaning that the complete roof system has been evaluated together for fire resistance. Installing any other combination could invalidate the fire rating.

TESTED ASSEMBLY TABLE

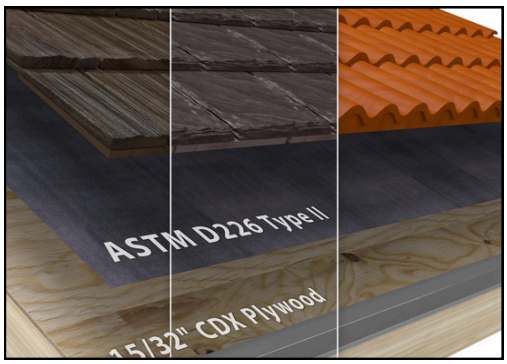
Always verify code compliance source documentation and system components meet building code criteria and ensure building officials and inspectors have access to the Code Evaluation Report† from which these tables were extracted. These tables and illustrations are not intended to replace source code compliance and testing documents.

Product Name	Fire Rating	Brava Material	Minimum Sheathing	Minimum Underlayment
Brava Cedar Shake 	CLASS A	Brava One	Minimum 15/32" Exposure 1 Plywood	Tested Fire-Resistant Underlayments: • Low-E ThermaSheet • ECO CHIEF SOLARHIDE SRW • Polyanchor® XFR + 4" Foil-Back Tape at all laps/edges*
	CLASS C			Standard Underlayment: Minimum ASTM D226 Type II 30# Asphalt Felt
Brava Slate 	CLASS A	Brava One	Minimum 15/32" Exposure 1 Plywood	Tested Fire-Resistant Underlayments: • Low-E ThermaSheet • ECO CHIEF SOLARHIDE SRW • Polyanchor® XFR + 4" Foil-Back Tape at all laps/edges*
	CLASS C			Standard Underlayment: Minimum ASTM D226 Type II 30# Asphalt Felt
Brava Spanish Barrel Tile 	CLASS A	Brava Class A	Minimum 15/32" Exposure 1 Plywood	Tested Fire-Resistant Underlayment: • GAF VersaShield FR Underlayment + Standard Underlayment (see below)
	CLASS C	Brava One		Standard Underlayment: Minimum ASTM D226 Type II 30# Asphalt Felt
Brava Flat Tile 	CLASS A	Brava One	Minimum 15/32" Exposure 1 Plywood	Tested Fire-Resistant Underlayment: • Polyanchor® XFR + 4" Foil-Back Tape at all laps/edges*
	CLASS C**			

*Polyanchor® XFR must be installed w/ 3" horizontal laps and ≥ 4" wide foil-back roof tape applied at all horizontal and vertical laps and edges. Brava Flat Tile is a new product and additional product testing is in progress. **The Flat Tile Class A assembly listed above is also certified as Class C and should be used when a Class C rating is required by code.

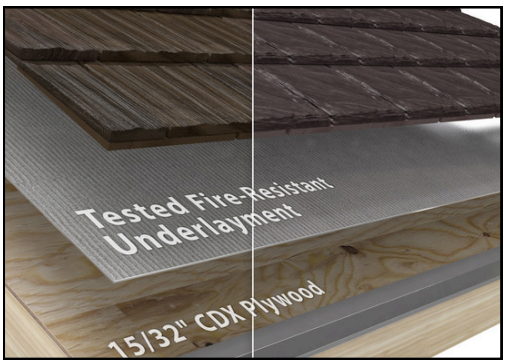
TESTED ASSEMBLY ILLUSTRATIONS

CEDAR SHAKE / SLATE / BARREL TILE



CLASS C TESTED ASSEMBLY

CEDAR SHAKE / SLATE / FLAT TILE



CLASS A TESTED ASSEMBLY

SPANISH BARREL TILE



CLASS A TESTED ASSEMBLY

FIRE RATING STANDARDS & TESTS

STANDARD TEST METHODS FOR FIRE TESTS OF ROOF COVERINGS

Established testing and rating standards for fire resistance of roof systems include ASTM E108, UL 790, and CAN/ULC-S107. While there are some differences, the above testing is comparable and can often be used interchangeably depending on code requirements. These methods categorize roof systems as Class A, B, or C, with Class A offering the highest fire resistance and Class C providing basic fire resistance. A fire rating is not always mandatory for roofing; consult with your local building department for resistance requirements, which vary based on regional risk factors and building types or uses.

ASTM E108 DETAILS

ASTM E108 serves as a critical standard for assessing the fire resistance characteristics of roofing materials. The standard outlines methods for evaluating how roof coverings handle external fire exposures, such as measuring the spread of flame, resistance to fire penetration, and the potential generation of flying burning embers under specified wind conditions.

KEY TEST CRITERIA

Intermittent flame exposure testing evaluates the ability of roof coverings to withstand brief, repeated applications of flame, simulating real-world conditions where fires may flare up and die down intermittently.

Spread of flame testing measures how quickly and extensively fire propagates across the surface of roof coverings when exposed to a continuous external flame source.

Burning brand testing assesses a roof covering's resistance to ignition and damage when exposed to burning debris or embers that may land on it during a fire.

Flying brand testing evaluates the potential for roof coverings to produce airborne, burning debris under fire exposure, which could spread the fire to adjacent structures or areas.

RECOMMENDED ASSEMBLIES

All system testing uses 15/32" CDX plywood, which is recommended for code compliance and best performance. OSB is also approved for warranty purposes. Brava recommends finding an underlayment that matches the durability and warranty of Brava Roof Systems. When installed correctly, underlayment, flashing, and roof metal are designed to seal the roof from water intrusion. A minimum 36" wide self-adhering membrane meeting ASTM D1970 is required in all valleys and along the eaves in areas where ice formation is possible. A 36" strip is also recommended along rakes. Self-adhered underlayment meeting ASTM D1970 for the whole roof is common and recommended in some climates. See Installation Guides for each roof system for full details. Ensure compliance with applicable codes and regional best practices.

BRAVA CEDAR SHAKE, SLATE, AND FLAT TILE ROOF SYSTEMS

- Self-Adhered Underlayment meeting ASTM D1970 at Valleys, Eaves, and Rakes
- Synthetic Underlayment meeting ASTM D226 Type II - Full self-adhered is recommended in some climates.
- “Brava One” Material + Tested Fire-Resistant Underlayment (if fire rating is required)

BRAVA SPANISH BARREL TILE ROOF SYSTEMS

- Self-Adhered Underlayment meeting ASTM D1970 at Valleys, Eaves, and Rakes
- Synthetic Underlayment meeting ASTM D226 Type II - Full self-adhered is recommended in some climates.
- “Brava Class A” Material + Tested Fire-Resistant Underlayment (if Class A fire rating is required)

NOTES

†Brava’s Code Evaluation Report and Listing Document, as well as other testing documents, are available at https://www.bravarooftile.com/resources/#codes-testing. Check for updates and confirm compliance with all applicable codes. Tested Assemblies are illustrated using the minimum required components. If code and design requirements allow, installed assemblies may include additional components.

Revision 1 (R1): Added Flat Tile references, Flat Tile Tested Assembly, and Polyanchor® XFR as approved by QAI for Shake/Slate.

RESOURCES

Check for updates to this and other Technical Bulletins on our Resources Page.

Complete Installation Training, View Resources, and Contact Technical Support by visiting our Technical Support Portal.

QUESTIONS

If you have any questions regarding Brava Roof Tile products and accessories, call 844-290-4196 and ask for Technical Support.
Or contact us through the Technical Support Portal.