

## MECHANICAL EXPANSION AND CONSTRUCTION JOINT FIRE STOPPING SYSTEMS

## TECHNICAL DATA SHEET

1. Product Name: **ULTRA BLOCK®**
2. Exclusively Sold By: **Backer Rod Mfg. Inc.**  
4244 N Broadway  
Denver, CO 80216  
Phone: 800-595-2950  
Fax: 303-308-0393  
Website: [www.backerrod.com](http://www.backerrod.com)
3. Product Description:  
**ULTRA BLOCK®** is a pre-engineered, patented, flexible textile fiberglass roll material with a fiberglass matt facing, containing approximately 30% by weight unexpanded vermiculite.

*Specific Uses:* **ULTRA BLOCK®**, when used together with an approved sealant, provides a 2-Hour, 3-Hour, or 4-Hour fire rated joint system as designated by design configuration, which is capable of withstanding  $\pm 50\%$  expansion and contraction. Most sealant manufacturers in the United States have tested one or more of their sealants in a UL® classified **ULTRA BLOCK®** system ranging in joint size from 1/2" up to 7". We ask that you verify your sealant selection complies with our UL system design. Approved sealant manufacturers include:

- Dow Corning
- Momentive Performance Materials
- C R Lawrence
- LymTal International
- Pecora Corporation
- Quaker
- Sika Corporation
- BASF Construction Chemical
- Specified Technologies Inc
- EGS Nelson
- Rectorseal Corporation

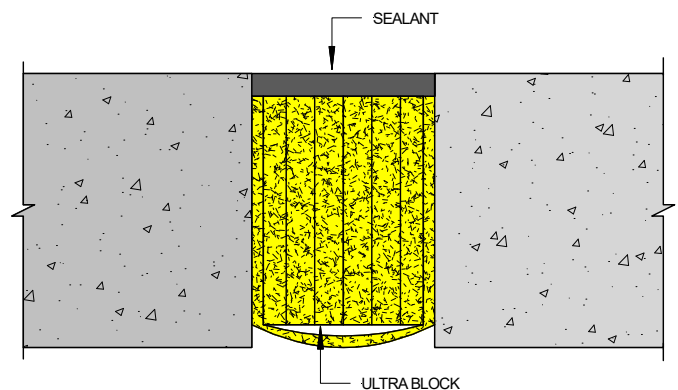
4. Composition, Material and Ordering

All **ULTRA BLOCK®** systems are manufactured in accordance with project requirements. **ULTRA BLOCK®** is manufactured in various widths and thicknesses, depending on the joint width, hourly rating and movement requirements. Ultra Block is manufactured and sold in roll form. Ultra Block configurations should be ordered to the maximum joint opening.

5. Benefits:

*Resiliency:* To be an effective fire blocking joint packing system, a product must remain highly resilient and must completely fill the moving joint for a great number of years. In most packed and caulked joints, examination of the resiliency of the forming material is difficult to check, as the material is covered up with sealant. Many joint packing materials, such as mineral wool and ceramic fiber, are not designed to handle joint movement and may fall out or slump in the joint when subjected to continuous joint expansion and contraction. Under fire situations, the fire blocking material must be in the same condition as when it was installed, meaning that the material must completely fill the void in order to block a fire. **ULTRA BLOCK®** has a unique patented, hinged design and composition that remains highly resilient under the most extreme conditions.

*Structurally Tested:* The structural testing of **ULTRA BLOCK®** was performed by Hauser Laboratories. The test was run on a 50% joint movement. Mineral wool and ceramic fiber joint packing materials were also tested. The joints were packed in the fully open position and were under the 25% joint side compression. The test ran continuously until either failure occurred or the test was terminated. Failure of both the mineral wool and ceramic fiber materials occurred in less than 600 cycles, or 1.6 years. The **ULTRA BLOCK®** successfully performed for over 28,000 cycles without failure or loss of resiliency, representing 76 years of service at one cycle per day.

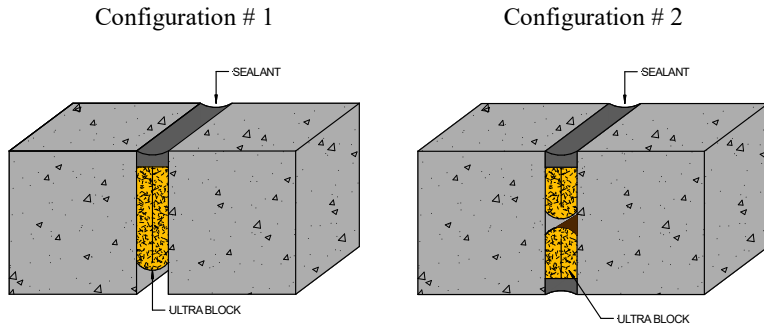


**Backer Rod Mfg. Inc.**

6. Installation:

ULTRA BLOCK® requires no cutting, fitting, or fabrication. Simply open the bag, unwind the roll, fold in half with the matt side facing outward, compress and slide it in the joint to required depth. Apply the sealant per the manufacturer’s installation instructions. When creating splice joints, cut each end at a 45° angle, alternating cuts so that the folded over ULTRA BLOCK® forms an interlocking v-shape skive joint.

7. Configurations, Sizing and Packaging



Sizing Chart							
Joint Width	Ultra Block Thickness	Ultra Block Width 2 Hours		Ultra Block Width 3 Hours		Ultra Block Width 4 Hours	
		Configuration		Configuration		Configuration	
		No. 1	No. 2	No. 1	No. 2	No. 1	No. 2
1/2"	3/8"	6"	2"	8"	4"	12"	6"
3/4"	1/2"	6"	2"	8"	4"	12"	6"
1"	3/4"	6"	3-1/2"	8"	4"	12"	6"
1-1/2"	1"	6"	3-1/2"	8"	4"	12"	6"

Packaging Information							
Thickness	Roll Length	LFT Per Bag Per Width					
		2"	3-1/2"	4"	6"	8"	12"
3/8"	70 LF	1260		630	420	280	210
1/2"	60 LF	1080	600	540	360	240	180
3/4"	40 LF		400	360	240	160	120
1"	30 LF	6"	300	270	180	120	90

8. Availability and Cost

ULTRA BLOCK® is marketed nationally and internationally by select authorized distributors. For name, address and telephone number of your nearest distributor please contact us at:  
800-595-2950 or sales@backerrod.com

9. Warranty

Unless otherwise agreed to in writing, ULTRA BLOCK® is sold without warranty, express or implied. Buyer must make their own determination as to the suitability of the product and application.

10. Specification Compliance:

Testing of ULTRA BLOCK® for use in expansion/ construction joints was conducted at Underwriters Laboratories®, Northbrook, Illinois. The full scale testing earned us classifications by UL® for use in horizontal and vertical joints plus compliance with the International Building Code. ULTRA BLOCK® Systems comply with and/or have been tested under the following standards and building codes:

- IBC - International Building Code
- ANSI/UL 2049 - UL Standard for Safety Tests for Fire Resistance of Building Joint Systems
- UL 263-92 - UL Standard for Safety Fire Test of Building Construction and Materials
- UL 1479 - UL Standard for Safety Fire Test of Through Penetration Firestops
- UL 723 - UL Standard for Safety Test for Surface Burning Characteristics of Building Materials
- ASTM E119 - Method for Fire Tests of Building Construction and Materials
- ASTM E814 - Methods for Fire Tests of Through Penetration Fire Stops
- ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials
- ASTM E1399 - Test Method of Cyclic Movement and Measuring the Minimum and Maximum joint Widths of Architectural Joint System
- ASTM C719 - Test Method of Adhesion and Cohesion of Elastomeric Joint Sealants Under Cyclic Movement
- ASTM C920 - Specification for Elastomeric Joint Sealants
- NFPA 251 - Fire Test of Building Construction Materials
- NFPA 255 - Burning Character of Building Materials

11. Technical Services:

Please contact Backer Rod Mfg. Inc. for technical guidance, special project engineering designs and drawings.

