

# BioBased 501w<sup>®</sup>

## Open Cell Insulation Quick Reference



For additional technical data see BioBased 501w<sup>®</sup> Technical Data Sheet.

Properties	Value	Test Method
<b>Water Vapor Permeability<sup>†</sup></b>		
3.5" (89 mm)	9.2 perms	ASTM E96
5.5" (140 mm)	6.1 perms	ASTM E96
<b>Air Leakage<sup>Δ</sup></b>		
5.5" (140 mm) @ 75 PA	< 0.02 L/s/m <sup>2</sup>	ASTM E283
<b>Closed Cell Content</b>	3.00%	ASTM D2856
<b>Core Density (nominal)</b>	0.5 pcf (8 kg/m <sup>3</sup> )	ASTM D1622
<b>Fungi Resistance</b>	Pass	ASTM C1338
<b>Dimensional Stability</b>	< -5.0%	ASTM D2126
<b>Finished Foam Bio-Content</b>	3%	ASTM D6866
<b>Sound Transmission Class (STC)</b>		
2 x 4 (50.8 mm x 101.6 mm) wood studs, 1/2" (12.7 mm) gypsum	38	ASTM E90
<b>Tensile Strength</b>	3.0 psi (29.7 kPa)	ASTM D1623
<b>Surface Burning Characteristics*</b>	4" (101.6 mm)	ASTM E84
Flame Spread Index	≤ 25	ASTM E84
Smoke Developed Index	≤ 450	ASTM E84

Full-Scale Room Corner Tests				
Test Method	Walls	Ceilings	Covering	Report Number
NFPA 286	7" (178 mm)	11.5" (292 mm)	1/2" Gypsum	01.13544.01.218
NFPA 286 (AC 377 Appendix X)	5.5" (140 mm)	11.5" (292 mm)	Foam Kote 50-50a (11 mil WFT, 6 mil DFT)	3184159-SAT-004
NFPA 286 (AC 377 Appendix X)	11.5" (292 mm)	11.5" (292 mm)	Flame Seal TB <sup>™</sup> (4 mil WFT, 3 mil DFT)	100294098-SAT-002A
UL 1715	5.5" (140 mm)	11.5" (292 mm)	Flame Seal TB <sup>™</sup> (30 mil WFT, 18mil DFT)	3184159-SAT-003-A

R-Value Aged 90 days @ 140°F (60°C)	ft <sup>2</sup> ·°F·h/Btu	(K·m <sup>2</sup> /W)	
1" (25.4 mm)	R – 3.8	RSI – 0.67	ASTM C518
3.5" (88.9 mm)	R – 13	RSI – 2.29	ASTM C518
5.5" (139.7 mm)	R – 20	RSI – 3.52	***
7.5" (190.5 mm)	R – 28	RSI – 4.93	***
10" (254 mm)	R – 37	RSI – 6.52	***
11.5" (292.1 mm)	R – 43	RSI – 7.57	***

- Δ The International Residential Code defines air impermeable as having less than 0.02 L/m-s at 75 Pa.
- \* This numerical flame spread and all other data presented is not intended to reflect the hazards presented by this or any other material under actual fire conditions.
- † ASHRAE defines a Class III vapor retarder as a material having between 1 and 10 perms.
- \*\* Coating applied to vertical surfaces only.
- \*\*\* Calculated Per ICC AC-377 and FTC Guidelines based on the K-Value at 3.5" (88.9 mm).

### Read This Before You Buy - What You Should Know About R-Values

The chart shows the R-value of this insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy. There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, and your fuel use patterns and family size. If you buy too much insulation, it will cost you more than what you'll save on fuel. To get the marked R-value, it is essential that this insulation be installed properly.

**Notice:** The technical data contained herein is true and accurate to the best knowledge and information available to BioBased Insulation<sup>®</sup> on the date of publication. The technical data is subject to change, however, and the user should contact BioBased Insulation<sup>®</sup> prior to use or application to verify that the technical data is current. In addition, the technical data is provided for your guidance only. Because many factors can affect the processing or application of the product and/or its use, it is the user's responsibility to first test the product to determine its suitability for the user's intended use. The sale and use of this product is subject to all of the terms and conditions set forth in the BioBased Insulation<sup>®</sup> sales order, including the LIMITED WARRANTY, DISCLAIMER OF WARRANTY AND RELEASE, and EXCLUSION OF CONSEQUENTIAL AND OTHER DAMAGES. This technical data does not create an express warranty of any kind. The only warranty applicable to this product is the written, limited express warranty contained in the BioBased Insulation<sup>®</sup> sales order, which is extended to the purchaser only.



For additional technical data see BioBased® 502 Technical Data Sheet.

Properties	Value	Test Method	
<b>Water Vapor Permeability†</b>			
3.5" (89 mm)	4.807 perms	ASTM E96	
<b>Air LeakageΔ</b>			
4" (101.6 mm) @ 75 PA	0.008 L/s/m <sup>2</sup>	ASTM E283	
<b>Closed Cell Content</b>	0.8%	ASTM D2856	
<b>Core Density (nominal)</b>	0.5 pcf (8 kg/m <sup>3</sup> )	ASTM D1622	
<b>Dimensional Stability</b>	1.34%	ASTM D2126	
<b>Finished Foam Bio-Content</b>	12%	ASTM D6866	
<b>Tensile Strength</b>	4.2 psi (29 kPa)	ASTM D1623	
<b>Surface Burning Characteristics*</b>	4" (101.6 mm)	ASTM E84	
Flame Spread Index	25	ASTM E84	
Smoke Developed Index	325	ASTM E84	
<b>R-Value Aged 90 days @ 140°F (60°C)</b>	ft <sup>2</sup> ·°F·h/Btu	(K·m <sup>2</sup> /W)	
1.2" (25.4 mm)	R – 3.9	RSI – 0.67	ASTM C518
3.5" (88.9 mm)	R – 13	RSI – 2.29	ASTM C518

- Δ The International Residential Code defines air impermeable as having less than 0.02 L/m-s at 75 Pa.  
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