

# BREEAM COMPLIANCE PRODUCT CARD

## Adhesive



ADHESIVE

## Armaflex Ultima SF990

Armaflex Ultima SF990 is water-based one component solvent-free adhesive. Specifically formulated for processing Armaflex Ultima and insulating materials based on Armaprene® synthetic rubbers.<sup>1</sup>

## BREEAM International New Construction 2016

BREEAM is a multi-criteria scheme to assess and certify buildings. Established in UK, it emphasises sustainable development by promoting green, healthy and eco-friendly buildings. Features of the buildings which may be assessed are: materials, quality of indoor environments and energy efficiency etc. Nowadays it has become a standard in real estates markets.

BREEAM compliance product card for **Armaflex Ultima SF990** was prepared to assist designers, architects, engineers, consultants and developers to provide clear information and to facilitate choosing proper product. Appropriate BREEAM categories related to Armaflex Ultima SF990 features were chosen and checked. Armaflex Ultima SF990 compliance and contribution to BREEAM categories are presented below.



Product compliant



Product contributes to a better rating

BREEAM Category	Issue	BREEAM Requirements	Credits	Product compliance
Indoor air quality: Minimising sources of air pollution	Hea 02	At least four of five finishing materials should meet appropriate volatile organic compounds (VOC) emission levels and confirm compliance with testing standards ISO 10580, ISO 16000-9, CEN/TS 16516 or CDPH Standard Method v1.1. VOC emission limits for insulation were listed in Tables 17 and 18 of BREEAM International NC 2016 Manual.	3 <sup>2</sup>	Sampling, testing and evaluation were performed according to ISO 16000-9. Adhesive meets exemplary level emission limits <sup>2</sup> : <ul style="list-style-type: none"> <li>- Formaldehyde &lt; 0,01 mg/m<sup>3</sup></li> <li>- Total volatile organic compounds &lt; 0,3 mg/m<sup>3</sup></li> <li>- Total semi-volatile organic compounds &lt; 0,1 mg/m<sup>3</sup></li> <li>- Category 1A and 1B carcinogens &lt; 0,001 mg/m<sup>3</sup></li> </ul>



For detailed information please refer to the documents provided by manufacturer:

<sup>1</sup> Armaflex Ultima SF990 product card

<sup>2</sup> Eurofins Product Testing A/S report No. G20242D and report No. G20242B

• Armaflex Ultima SF990 has a direct impact on the following categories. While using Armaflex Ultima SF990 with another appropriate products - credits stated above may be awarded. Maximum number of credits influenced by the product for each category was stated above.

# LEED COMPLIANCE PRODUCT CARD

## Adhesive



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## LEED 2009

### for Green Building Design and Construction

LEED is a multi-criteria scheme to assess and certify buildings. Established in USA, it emphasises sustainable development by promoting green, healthy and eco-friendly buildings. Features of the buildings which may be assessed are: materials, quality of indoor environments and energy efficiency etc. Nowadays it has become a standard in real estates markets.



LEED compliance product card for **Armaflex Ultima SF990** was prepared to assist designers, architects, engineers, consultants and developers to provide clear information and to facilitate choosing proper product. Appropriate LEED categories related to Armaflex Ultima SF990 features were chosen and checked. Armaflex Ultima SF990 compliance and contribution to LEED categories are presented below.



Product compliant



Product contributes to a better rating

LEED Issue	Credit	LEED Requirements	Points	Product compliance
IEQ Credit 3.2	Construction Indoor Air Quality Management Plan – before occupancy	A building flush-out or IAQ testing should be conducted prior to occupancy to demonstrate contaminant limits are not exceeded. The maximum concentration of formaldehyde in air is: 27 parts per billion while volatile organic compounds (VOC): 500 micrograms per cubic meter.	1**	Armaflex Ultima SF990 may contribute reducing air contamination. Sampling, testing and evaluation of the product determine low levels of formaldehyde <sup>2</sup> and VOC <sup>3</sup> . 
IEQ Credit 4.1	Low-emitting Materials – Adhesives and Sealants	Adhesives, sealants or sealant primers used should be compliant with South Coast Air Quality Management district Rule #1168. Volatile organic compounds (VOC) limit for contact adhesive is 80 g/L less water. All products certified under GREENGUARD Children & Schools <sup>SM</sup> scheme are also compliant.	1*	Armaflex Ultima SF990 is a low-emitting contact adhesive. According to the product's results <sup>1</sup> VOC exempt compounds of 23 g/l less water are far below the limit set by SCAQMD Rule #1168. 

For detailed information please refer to the documents provided by manufacturer:

<sup>1</sup> Armaflex Ultima SF990 product card

<sup>2</sup> Eurofins Product Testing A/S report No. G20242A1; G20242D1\_02 and G20242C1\_02

<sup>3</sup> Eurofins Product Testing A/S ref. No. G21462B

[www.armacell.com](http://www.armacell.com)

• **Armaflex Ultima SF990 has a direct impact on the following categories.** While using Armaflex Ultima SF990 with another appropriate products - credits stated above may be awarded. Maximum number of credits influenced by the product for each category was stated above.

•• **Armaflex Ultima SF990 has an indirect impact on the following categories.** Using Armaflex Ultima SF990 with another appropriate products may contribute to achieve credits. Maximum number of credits influenced by the product for each category was stated above.

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## LEED v4 for Building Design and Construction

LEED is a multi-criteria scheme to assess and certify buildings. Established in USA, it emphasises sustainable development by promoting green, healthy and eco-friendly buildings. Features of the buildings which may be assessed are: materials, quality of indoor environments and energy efficiency etc. Nowadays it has become a standard in real estates markets.

LEED compliance product card for **Armaflex Ultima SF990** was prepared to assist designers, architects, engineers, consultants and developers to provide clear information and to facilitate choosing proper product. Appropriate LEED categories related to Armaflex Ultima SF990 features were chosen and checked. Armaflex Ultima SF990 compliance and contribution to LEED categories are presented below.



Product compliant



Product contributes to a better rating

LEED Issue	Credit	LEED Requirements	Points	Product compliance	
EQ	Low-Emitting Materials	Option 1. Product category calculations	Up to 7 product categories of finishing materials should be compliant with relevant volatile organic compounds (VOC) emission levels and testing standards for each issue: - general emissions evaluation: CDPH Standard Method (2010) or German AgBB Testing and Evaluation Scheme (2010) or ISO 16000-3/6/9/11:2010 in conjunction with AgBB or French legislation on VOC emission class labeling or the DIBt testing method (2010) and - additional VOC content requirements for wet-applied products: SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications or national VOC control regulations (e.g. European Decopaint Directive (2004/42/EC), Canadian VOC Concentration Limits for Architectural Coatings, Hong Kong Air Pollution Control (VOC) Regulation).	3*	Armaflex Ultima SF990 has been tested <sup>2</sup> in accordance to: - ISO 16000-3/6/9/11:2010 in conjunction with the AgBB (2012), DIBt (2010) and French legislation on VOC emission class. For the French regulation emission class is A+. - SCAQMD Rule 1168 (2005): according to the product's results <sup>3</sup> VOC less water less exempt compounds is 23 g/l which is far below the limit.



For detailed information please refer to the documents provided by manufacturer:  
<sup>1</sup> Armaflex Ultima SF990 product card  
<sup>2</sup> Eurofins Product Testing A/S report No. G20242A1; G20242D1\_02 and G20242C1\_02  
<sup>3</sup> Eurofins Product Testing A/S ref. No. G21462B

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