HSE profile and Green Building contribution
Hilti Firestop Foam Solid CP 620

LEED and **BREEAM** are third-party certification programs which provide a benchmark for the design, construction and operation of high-performance green buildings. Both promote a whole-building approach to sustainability and evaluate it by scoring points based on a set of criteria. Individual products cannot be certified under LEED or BREEAM but they can contribute to criterion compliance (prerequisites or credits).
The following information shows the areas where Hilti Firestop Foam Solid can potentially contribute, as well as the maximum number of points that can be achieved by accomplishing each criteria and state the required values and explanations for the building certification process.

Hilti Firestop Foam Solid is a product aiming at solving multiple penetrations. It is easy to use in low accessible opening, it is paintable and it is for use over a wide range of applications. It consists on a rigid polyurethane based Firestop foam.

		LEED		BREEAM	
Sustainable sites management		**Criteria** (Up to # points) **& Evaluation**			
Construction site waste	Some dust generation during installation	**SS Prerequisite 1**	★★☆	**Wst 1** (3) **Man 3d** (4 for Man 3)	★★☆
Life cycle assesment, Product Carbon Footprint	Under evaluation	**SS Credit 5.2** (1)	★☆☆	**Man 3a** (4 for Man 3) **Mat 1** (4)	★☆☆
Water consumption	No water demand during installation and repenetration	**WE Credit 2** (2)	★★★	**Man 3c** (4 for Man 3)	★★★
Water pollution	No waste water generation during installation and repenetration		★★★	**Man 3e** (4 for Man 3)	★★★
Application	No electric tool needed for installation, only a manual dispenser	-		-	
Energy Optimization, Atmosphere and Pollution					
Air tightness*	Air permeability: <0.0138 m3/h m2 at 50 Pa (acc to EN 1026) - see test report dated March 12, 2008	**EA Prerequisite 2**	★★★	**Ene 1** (15) **Ene 6** (1)	★★★
Thermal insulation*	λ < 0.049 W/mK - see test report dated April 13, 2010	**EA Credit 1** (1-19) **IEQ Credit 7.1** (1)	★★☆	**Ene 1** (15) **Mat 6** (2)	★★☆
Ozone Depletion Potential	ODP, catalytic: < 0,00001 kg R11-eq per unit	**EA Prerequisite 3**	★★★	**IC** (1)	★★★
Materials and Resources					
Reusability	It is not reusable	**MR Credit 1.1** (1-3) **MR Credit 1.2** (1)	☆☆☆	**Wst 1** (3)	☆☆★
Product recycling	The product cannot be recycled or salvaged but the packaging can be totally recycled or salvaged	**MR Credit 2** (1-2)	★★☆	**Wst 1** (3)	★★☆
Recycled content	No, since firestop products require the traceability of their raw materials to guarantee uniform and constant product performance and quality.	**MR Credit 4** (1-2)	☆☆☆	**Mat 5** (3)	☆☆☆
	The packaging is partially manufatured with recycled material		★★☆		★★☆
Product origin	Raw materials origin: Germany	**MR Credit 5** (1-2)	★☆☆		★☆☆
	Manufacturing location: Germany		★☆☆		★☆☆
Rapidly Renewable Materials	Raw materials are not rapidly renewable	**MR Credit 6** (1)	☆☆☆	-	
Indoor Environmental Quality, Health and Wellbeing					
IAQ (Indoor Air Quality) Management	Xn, R40	**IEQ Credit 3.1** (1)	☆☆☆	-	
	Halogen Free Flame Retardants	**IEQ Credit 3.2** (1)	★★★		
Low-Emitting Materials Volatile Organic Compounds	VOC acc to LEED 2009 / EPA #24: 1.3 g/l - see certificate dated July 20, 2009	**IEQ Credit 4.1** (1) **IEQ Credit 4.2** (1)	★★★	**Hea 9** (1)	★★★
Acoustic Performance & Soundproofing	Dn,w** = 59 dB and STC** = 50 (based on test report P34-A 45291/3093 and 3018 01-30621.1-4). Protection to the sound passage and noise reduction.	-		**Hea 13** (1)	★★★

★★★ *Product highly contributes to Green Building certification under this clause*
★★☆ *Product contributes to Green Building certification under this clause*
★☆☆ *Not applicable for this product or dependent on each situation and so not possible to evaluate in general terms*
☆☆☆ *Product makes no contribution to Green Building certification under this clause*

** Lower heating and cooling costs ** Sound reduction Index*

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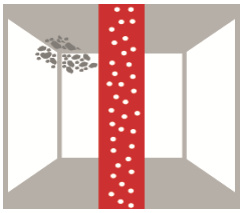
The sustainability of sites is improved with Hilti Firestop Foam by supporting LEED, BREEAM and the following extra properties and highly important characteristics of a building, as well as, preventing effectively from the spread of a fire:

The spread of fire in a building is probably the worst scenario owners or occupants can imagine. When it comes to effectively minimizing the effects of fire, the interplay of a variety of systems and elements is required. Active fire protection – including components such as fire alarms and fire extinguishers – is taken into account in many buildings. On the other hand, often less emphasis is placed to measures, which help to contain fire at its point of origin and prevent the spread of fire and smoke effectively. This should ideally be designed already in the planning phase. Components of passive fire protection create effective barriers against the passage of fire, smoke and toxic gases through openings in walls or floors, resulting from through-penetrations of cables and pipes, from construction joints or other damages.



Mold in a building can attack and weaken many types of build materials and fungus, caused by moisture and humidity, can be seriously detrimental to the health of building users. Measures to successfully prevent the formation of mold and mildew in a building must be taken at the planning stage. Hilti Firestop Foam is manufactured with materials that provide no nutrition for fungi and tested in accordance with ISO 846 and ASTM G21, to ensure that functionality is not compromised.

All the packagings and cans used by Hilti can be recycled. Hilti Firestop Foam is considered household waste at the end of the life of the building. Please consider your national law regarding the disposal of the Firestop Foam and contact your local Hilti partner for further information.

If you need additional information or documentation on a certain HSE issue, please do not hesitate to contact your local Hilti partner - we are happy to provide you with additional information required to make your green building project a success.

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