

# HSE profile and Green Building contribution

## Hilti Firestop Silicone Sealant CP 601S, CFS-S SIL

**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 Silicone Sealant 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 Silicone Sealant** for construction joints provides excellent movement capacity and has great adhesion without the use of a primer. It is smoke, gas and water tight and it contains no halogens or solvents. It is weather and UV resistant.



		LEED	BREEAM		
<b>Sustainable sites management</b>		Criteria (Up to # points) & Evaluation			
Construction site waste	No waste or dust generation during installation	<b>SS Prerequisite 1</b>	☆☆☆	<b>Wst 1 (3)</b>	☆☆☆
Life cycle assesment, Product Carbon Footprint	PCF (GWP 100 years): 2.51 (cartridge) / 5.72 (foil) / 148.37 (pail) Kg CO2-eq - low global warming potential	<b>SS Credit 5.2 (1)</b>	☆☆☆	<b>Man 3d (4 for Man 3)</b>	☆☆☆
Water consumption	No water demand during installation	<b>WE Credit 2 (2)</b>	☆☆☆	<b>Man 3a (4 for Man 3)</b>	☆☆☆
Water pollution	No waste water generation during installation			<b>Mat 1 (4)</b>	☆☆☆
Application	No electric tool needed for installation, only a manual dispenser	-		<b>Man 3c (4 for Man 3)</b>	☆☆☆
				<b>Man 3e (4 for Man 3)</b>	☆☆☆
				-	

### Energy Optimization, Atmosphere and Pollution

Air tightness*	Air permeability: <0.001 m3/h m2 at 50 Pa (acc to EN 1026) - see test report dated Sept. 08, 2005	<b>EA Prerequisite 2</b>	☆☆☆	<b>Ene 1 (15)</b>	☆☆☆
Thermal insulation*	Not determined	<b>EA Credit 1 (1-19)</b>	☆☆☆	<b>Ene 6 (1)</b>	☆☆☆
Ozone Depletion Potential	Under evaluation	<b>IEQ Credit 7.1 (1)</b>	☆☆☆	<b>Ene 1 (15)</b>	☆☆☆
		<b>EA Prerequisite 3</b>	☆☆☆	<b>Mat 6 (2)</b>	☆☆☆
				<b>IC (1)</b>	☆☆☆

### Materials and Resources

Reusability	The Hilti Firestop Sealants are not reusable	<b>MR Credit 1.1 (1-3)</b>	☆☆☆	<b>Wst 1 (3)</b>	☆☆☆
Product recycling	The product cannot be recycled or salvaged but the packaging can be totally recycled or salvaged	<b>MR Credit 1.2 (1)</b>	☆☆☆	<b>Wst 1 (3)</b>	☆☆☆
Recycled content	No, since firestop products require the traceability of their raw materials to guarantee uniform and constant product performance and quality.	<b>MR Credit 2 (1-2)</b>	☆☆☆	<b>Mat 5 (3)</b>	☆☆☆
	The packaging is partially manufactured with recycled material				
Product origin	Raw materials origin: Europe	<b>MR Credit 4 (1-2)</b>	☆☆☆		
	Manufacturing location: Germany				
Rapidly Renewable Materials	Raw materials are not rapidly renewable	<b>MR Credit 5 (1-2)</b>	☆☆☆		
		<b>MR Credit 6 (1)</b>	☆☆☆	-	

### Indoor Environmental Quality, Health and Wellbeing

IAQ (Indoor Air Quality) Management	No dangerous good or labelling needed and no content of carcinogens	<b>IEQ Credit 3.1 (1)</b>	☆☆☆	-	
	Halogen Free Flame Retardants	<b>IEQ Credit 3.2 (1)</b>	☆☆☆		
Low-Emitting Materials Volatile Organic Compounds	VOC acc to LEED 2009 / EPA #24: 3.0 g/l - see certificate dated Feb. 24, 2009	<b>IEQ Credit 4.1 (1)</b>	☆☆☆	<b>Hea 9 (1)</b>	☆☆☆
Acoustic Performance & Soundproofing	Dn,w** = 58 dB and STC** = 50 (refer to test report P43-A 46972/3093 and 3018 98-67354.4-6). Protection to the sound passage and noise reduction.	<b>IEQ Credit 4.2 (1)</b>	☆☆☆	<b>Hea 13 (1)</b>	☆☆☆
		-			

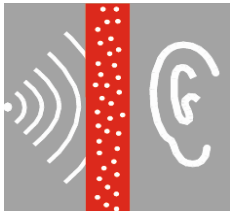
- ☆☆☆ Product highly contributes to Green Building certification under this clause
- ☆☆☆ Product contributes to Green Building certification under this clause
- ☆☆☆ Not applicable for this product or dependent on each situation and so not possible to evaluate in general terms
- ☆☆☆ Product makes no contribution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

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

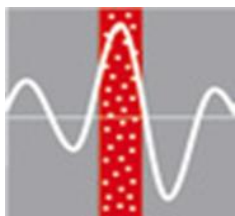
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BU Chemicals, CETsp&CMT

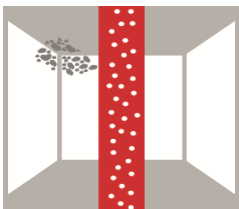
**The sustainability of sites is improved with Hilti Firestop Silicone Sealant by supporting LEED, BREEAM and the following extra properties and highly important characteristics of a building, as well as, preventing effectively from the spread of a fire:**



Sound insulation is of great importance to the health and well-being of the occupants of a building. Hilti firestop products are tested for this purpose and individually tailored to the requirements of the installation and building structure. Hilti Firestop Silicone Sealant, tested in accordance with ISO 140-3, 20140-10 and 717-1 standard, allows compliance with the applicable sound insulation specifications for fireproofed penetrations through walls and floors, and joints between building components.



There is a huge risk of post-earthquake impacts and a following fire represents a major one for the safety of human lives and protection of assets and facilities. In a building there are a lot of non-structural components, like pipes and firestop systems, that are expected to continue working after an earthquake. Hilti has conducted extensive tests to determine the behavior of Hilti Firestop products in a seismic event. The results for Hilti Firestop Silicone Sealant in joints show their capacity to assurance fire integrity joints and the continuity of important operations and supply systems and also to avoid smoke development and negative effects of broken service connections.



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 Silicone Sealant 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 Silicone Sealant is considered household waste at the end of the life of the building. Please consider your national law regarding the disposal of the Firestop Sealant and contact your local Hilti partner for further information.



Volatile Organic Compounds are compounds emitted as gases from certain solids or liquids. Depending on their concentration and the exposure time, they can be harmful for the health causing effects like eye, nose, and throat irritation, headaches, loss of coordination, nausea, damage to liver, kidney, and central nervous system. And some are even suspected to cause cancer. French VOC labelling regulation foresees that from 1st January 2012, any covered product placed on the market has to be labelled with emission classes based on their emissions after 28 days, tested in line with ISO 16000 standards and calculated for the European Reference Room (TC 351).



**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.**



Hilti Firestop Silicone Sealant has been registered in the Swedish database BASTA. BASTA registration means that we confirm that this product meets agreed properties criteria regarding properties that are harmful to the environment and health. See [www.bastaonline.se](http://www.bastaonline.se).

