

HSE profile and Green Building contribution

Hilti Firestop Collar Endless CFS-C EL

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 Joint Spray can potentially contribute to getting points, 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.

The Hilti Firestop Collar Endless can be custom cut to various diameters and can be assemble in many different configurations offering a fast and easy closing without the requirement of any tools. It consists on an intumescent inlay inside a high-resistance fiber glass and separate metal parts to provide a high flexible solution for all applications.



Sustainable sites management		LEED		BREEAM	
		Criteria (Up to # points) & Evaluation			
Construction site waste	No waste or dust generation during installation	SS Prerequisite 1	★ ★ ★	Wst 1 (3) Man 3d (4 for Man 3)	★ ★ ★
Life cycle assesment, Product Carbon Footprint	PCF (GWP 100 years): 9.147 kg CO2-eq - low global warming potential	SS Credit 5.2 (1)	★ ★ ★	Man 3a (4 for Man 3) Mat 1 (4)	★ ★ ★
Water consumption	No water demand during installation	WE Credit 2 (2)	★ ★ ☆	Man 3c (4 for Man 3)	★ ★ ☆
Water pollution	No waste water generation during installation		★ ★ ☆	Man 3e (4 for Man 3)	★ ★ ☆
Application	Electric tools needed only for fixing to surface	-	☆ ☆ ☆ ☆	-	☆ ☆ ☆ ☆

Energy Optimization, Atmosphere and Pollution

Air tightness*	Total installation with backfilling is smoke tight	EA Prerequisite 2	★★★★	Ene 1 (15) Ene 6 (1)	★★★★
Thermal insulation*	Not determined	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	Pipes could be changed or removed without changing the Hilti Firestop Collar. There is not need for reinstallation during building lifetime and so no material waste generation.	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 manufactured with recycled material		★★★☆☆		★★★☆☆
Product origin	Raw materials origin: Germany and Italy	MR Credit 5 (1-2)	★★☆☆		★★☆☆
	Manufacturing location: Romania		★★☆☆		★★☆☆
Rapidly Renewable Materials	Raw materials are not rapidly renewable	MR Credit 6 (1)	☆☆☆☆	-	☆☆☆☆

Indoor Environmental Quality, Health and Wellbeing

IAQ (Indoor Air Quality) Management	No dangerous good or labelling needed and no content of carcinogens	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: 11 g/l - see certificate dated May 17, 2013	IEQ Credit 4.1 (1) IEQ Credit 4.2 (1)	★★★★	Hea 9 (1)	★★★★
Acoustic Performance & Soundproofing	Dn,e,w** = 64 dB (refer to test report 13-000855-PR01 dated Aug. 9, 2013). 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

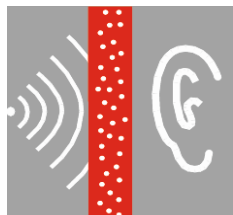
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BU Chemicals, CETsp&CMT

The sustainability of sites is improved with Hilti Firestop Collar Endless 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.



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 Collar Endless, tested in accordance with ISO 140-3, 20140-10 and 717-1 standard, allow compliance with the applicable sound insulation specifications for fireproofed penetrations through walls and floors, and joints between building components.



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 Collar Endless 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 Collar Endless is totally manufactured, so no waste is generated on the jobsite during the construction phase, and it is considered household waste at the end of the life of the building. Please consider your national law regarding the disposal of the Firestop Collar Endless 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 and contact your local Hilti partner - we are happy to provide you with additional information required to make your green building project a success.