

HSE profile and Green Building contribution

Hilti Firestop Mortar CP 636, CFS-M RG

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 Mortar 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 Mortar is a cement-based mortar. It has been tested against ageing resistance to offer optimum firestopping potential with a fire rating up to 4 hours. It consists on a cement based Firestop mortar.

		LEED	BREEAM		
		Criteria (Up to # points) & Evaluation			
Sustainable sites management					
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	PCF (GWP 100 years): 60 kg CO2-eq per 20Kg bag	SS Credit 5.2 (1)	☆☆☆	Man 3a (4 for Man 3) Mat 1 (4)	☆☆☆
Water consumption	Water used for mixing of mortar and cleaning of tools	WE Credit 2 (2)	☆☆☆	Man 3c (4 for Man 3)	☆☆☆
Water pollution	Waste water generation during installation		☆☆☆		Man 3e (4 for Man 3)
Application	Electrical mixer	-		-	

Energy Optimization, Atmosphere and Pollution

Air tightness*	Air permeability: 0.0066 m3/h m2 at 50 Pa (acc to EN 1026) - see test report dated Sept. 08, 2005	EA Prerequisite 2	☆☆☆	Ene 1 (15) Ene 6 (1)	☆☆☆
Thermal insulation*	λ = 0.23 W/mK - see test report dated March 03, 2011	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	The Hilti Firestop Mortar 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 manufactured 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	Xi	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 g/l - see certificate dated July 20, 2009	IEQ Credit 4.1 (1)	☆☆☆	Hea 9 (1)	☆☆☆
		IEQ Credit 4.2 (1)	☆☆☆		
Acoustic Performance & Soundproofing	Dn,w** = 59 dB - refer to test report A 50590/3093. 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

The sustainability of sites is improved with Hilti Firestop Mortar by supporting LEED, BREEAM, 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.

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).



All the packagings and cans used by Hilti can be recycled. Hilti Firestop Mortar is considered household waste at the end of the life of the building. Please consider your national law regarding the disposal of the Firestop Mortar 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.