

GRUPPO BARDELLI S.P.A.

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Oderzo, January 2021

CONTRIBUTION TO OBTAINING CREDITS FOR LEED CERTIFICATION OF BUILDINGS

Appiani products contribute to obtaining credits for LEED BD&C v 4 (LEED Building Design & Construction) system in the thematic areas listed here below.

Product Classification: Glazed mosaic tiles, dry pressed with low water absorption (0,5% < Eb \leq 3%) Group B1b - M - GL EN 14411:2016 H appendix

MR Credit	Description	Production		
Sustainable Site (SS)	Sustainable Site – Heat Island Reduction (non roof)	Appiani products do not contribute to change the energy balance of the environments where installed. They don't produce any Urban Heat Island Effect, thanks to their very good physical properties. This encourages the external use of these products for both open and covered spaces. SRI (Solar Reflectance Index) 0,87 (Anthologhia MOS 13 Calla - White) Solar Reflectance index available for other colours		
Materials &	Building Product			
Resorurces (MR)	Disclosure and Optimization – Environmental Product Declaration	Industry-wide (generic) EPD available		
	Building Product Disclosure and Optimization — Sourcing of Raw Materials Appiani products are manufactured using production cycles that a terms of care and protection of the environment. Appiani mosaics are produced using non-metallic inorganic raw mate such as clays, feldspar and sands. During the production, a sintering temperature (higher than 1000 °C) transforming powders into a partially crystalline and partially amorphous, with the chemical comtable below:		norganic raw materials in a powdery state,	
			ng powders into a solid ceramic object,	
		F Ir	nposition Clay Feldspar Internal Scrap Addittives	Approximate Percent by Weight 60 – 70 % 20 – 25% 5 – 10 % 1 -1,5 %
		Surface G	Glaze	12,5 %
		Appiani mosaics are manufactured using recycled products as here below reported.		
		Pre-Consumer Recycled Co (% per mass unit) Post-Consumer Recycled Co (% per mass unit)		6
		Total Recycled Content (% per mass unit)	>30%	6







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	Building Product Disclosure and Optimization – Sourcing of Raw Materials	Production Plant: Appiani – Via Pordenone 13, 31046 Oderzo (TV) – Italy Raw Materials sourcing origin: 1. 100% of Appiani raw materials coming from a distance within 250 miles from the production plant
	Construction and Demolition Waste Management - Reduction of total waste material	The type of waste material expected to occur from the use of Appiani mosaics includes off cut materials and packaging. The packaging of Appiani products is environmentally sustainable as it is totally recyclable. The Amount of non-hazardous waste (Cardboard box) expected per product unit based on mass is 14,59 kg/ton Amount of non-hazardous waste (Cardboard box) that can be recycled/reused is 6,05kg/ton
Low-Emitting Materials (IEQ)	Indoor Environmental Quality - Low- Emitting Materials	Appiani products do not emit any VOC (Volatile Organic Compounds). No traces of VOC have been reckoned from the qualified external laboratories that examined our materials Third Party Certification Available: UL 2818 – 2013 Gold Standards for Chemical Emissions for building Materials, Finishes and Furnishings.

Best Regards

Appiani

