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6th March 2020

TA20018 GEN0206

To Whom It May Concern,

RE: Dimensional Stability – Gem Black Honed Uniplus Terrazzo

Mapei Technical Assistance Department has been requested to perform dimensional stability testing on Gem Black Honed Uniplus Terrazzo.

Stone Name:	Gem Black Honed Uniplus Terrazzo
Dimension (mm):	600 x 600 x 16
Number of Samples:	2

Table 1: Sample details.

Image 1: Tile appearance.

Testing was conducted in accordance with UNI EN 14617-12:2005. This testing defines the measurement of dimensional stability of natural stone materials and/or materials recomposed with cement and resin, i.e. registers dimensional variations (shrinkage, expansions and/or bending) due to the contact of these materials with the water contained in mortars or cementitious adhesives.

According to EN 14617-12:2005, Gem Black Honed Uniplus Terrazzo of these dimensions is classified as Class A. Excerpt from the standard:

"these materials can be considered **stable** and particular problems linked to the laying down operation don't appear. The adhesive choice can be made considering other factors, such as the type of support, the possible stresses and the execution time requested for the work."

If you require any further assistance, please do not hesitate to contact Mapei Technical Assistance.

Kind regards,

Chris Cranitch (BSc Chem hon) Technical Product Specialist Technical Assistance Department

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EN 14617 Class	Movement using rapid setting adhesive (mm)	Mapei Rating	Conclusion
А	-	А	I) The material can be considered <u>stable</u> and does not show any particular application problems.
В	<0.3	B*	II) The material can be considered quite sensitive to water. For application use: adhesives that have as main characteristics: rapid hydration and drying and short setting time, to hinder the movement of the material already after three hours from application.
	>0.3	C**	III) The material can be considered very sensitive to water at short times. Even adhesives mentioned in point II) cannot hinder the movement, because it occurs before they set. We suggest not using cementitious based adhesives for the application
С	<0.3	В*	IV) These materials need special care being very sensitive to water at short times. For the application with fast set and rapid hydration and drying adhesives consider jobsite conditions
	>0.3	C**	V) We suggest not using cementitious based adhesives for the application. Use adhesives that do not contain water such as two-component polyurethane adhesives.

Table 2: Dimensional stability classification.

Disclaimer: Make note that the measured dimensional variations are not absolute values, but values referring to the specific dimensions of the tested material. This testing was conducted under laboratory conditions. Site conditions (e.g. temperature and humidity) may produce different results. Moreover, the same materials but from a different stone quarry or different production, can give different results.