

**MODENA CENTRO PROVE s.r.l.**

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
Tel. 059822417 r.a. - Fax 059380281 - e-mail : info@modenacentroprove.it - www.modenacentroprove.com
C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

TEST REPORT: 20124073/5

Modena, 17/09/12

CUSTOMER	LAMINAM SPA - - VIA GHIAROLA NUOVA 258 - 41042 - FIORANO MODENESE - MO
MATERIAL and/o SAMPLE to be tested	LAMINAM;
Denomination	LAMINAM 5 E LAMINAM 5+;
Date of sample reception	03/09/2012;
Kind of test executed	Determination of the Measurement of Impact Strength
Referring standards	UNI EN ISO 10545-5:2000
Shifting from standards	None
Equipment	Impact Test Gabbrielli cod. MCP C18
Calibration	Rapporto di taratura n°016 del 23/04/2012
Subcontracted phases	None
Sampling made by	Customer

*The test results showing in this Report are only referred to the sample taken by our staff or supplied by the Customer. He commits himself to reproduce integrally this document. Partial reproduction is forbidden.
The times of retain of the samples was indicated in the offer related to the test report.*

Examiner
Roberto Mattia
p. Rebottini Mattia

MODENA CENTRO PROVE
Roberto Mattia
Ceramic Dept. Responsible
P.I. De Pasquale Roberto

MODENA CENTRO PROVE
Giuseppe Sant'Unione
Director
Sant'Unione dr. Giuseppe

**MODENA CENTRO PROVE s.r.l.**

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
Tel. 059822417 r.a. - Fax 059380281 - e-mail : info@modenacentroprove.it - www.modenacentroprove.com
C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

DETERMINATION OF THE MEASUREMENT OF IMPACT STRENGTH

Beginning date : 14/09/2012

Analysis ending date : 17/09/2012

SAMPLE : Ceramic tiles, marked « LAMINAM 5»

The coefficient of restitution is the measurement of the elastic properties of ceramic surfaces after laying. It is measured by dropping a steel ball onto them from a preset height and measuring the height of the bounce.

OPERATING CONDITION

- Chromium steel ball with diameter 19 mm
- Equipment comprising electromagnet and sound measuring system
- Standard mortar substrate measuring 75 x 75 x 50 mm.
- Dual compound epoxy resin.

RESULTS

Sample	Coefficient of restitution
1	0,830
2	0,840
3	0,810
4	0,840
5	0,800
Mean Value	0,82

- Coefficient of restitution, mean value : 0,82
- Description of any surface breakages : Circular mark in the point of impact.

REQUIREMENTS

(Norm EN 14411 Annex G)

Test method available.

Examiner
Roberto Mattia
p. Rebottini Mattia

MODENA CENTRO PROVE
Roberto De Pasquale
Ceramic Dept. Responsible
P.I. De Pasquale Roberto

MODENA CENTRO PROVE
Giuseppe Sant'Unione
Director
Sant'Unione dr. Giuseppe

**MODENA CENTRO PROVE s.r.l.**

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
Tel. 059822417 r.a. - Fax 059380281 - e-mail : info@modenacentroprove.it - www.modenacentroprove.com
C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

DETERMINATION OF THE MEASUREMENT OF IMPACT STRENGTH

Beginning date : 14/09/2012

Analysis ending date : 17/09/2012

SAMPLE : Ceramic tiles, marked « LAMINAM 5+ »

The coefficient of restitution is the measurement of the elastic properties of ceramic surfaces after laying. It is measured by dropping a steel ball onto them from a preset height and measuring the height of the bounce.

OPERATING CONDITION

- Chromium steel ball with diameter 19 mm
- Equipment comprising electromagnet and sound measuring system
- Standard mortar substrate measuring 75 x 75 x 50 mm.
- Dual compound epoxy resin.

RESULTS

Sample	Coefficient of restitution
1	0,810
2	0,800
3	0,750
4	0,820
5	0,770
Mean Value	0,79

- Coefficient of restitution, mean value : 0,79
- Description of any surface breakages : Circular mark in the point of impact

REQUIREMENTS

(Norm EN 14411 Annex G)

Test method available.

Examiner
Roberto
P. Rebutini Mattia

MODENA CENTRO PROVE
Roberto
Ceramic Dept. Responsible
P.I. De Pasquale Roberto

MODENA CENTRO PROVE
Giuseppe
Director
Sant'Unione dr. Giuseppe