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Impact Resistance Tests
Report No/Date: 118c / 09 February, 2009
Application No/Date: 8 / 02 January, 2009

MARE STONE TECHNOLOGIES

Impact resistance tests were carried out on the man-made cement based "facade system" samples with the commercial name of "**MARESTONE**" which were sent to our laboratory with your application dated January 2nd, 2009.

The impact resistance tests were applied according to "Determination of Impact Resistance of Panels and Panel Assemblies" test technique published by European Organization for Technical Approvals (EOTA) on February 2003. The leather bag filled with 50 kg of glass balls were dropped on the installed facade elements from different heights. Resistance at each impact was determined. Test setup is shown in Figure 1. Test results are given in Table 1 and Table 2.

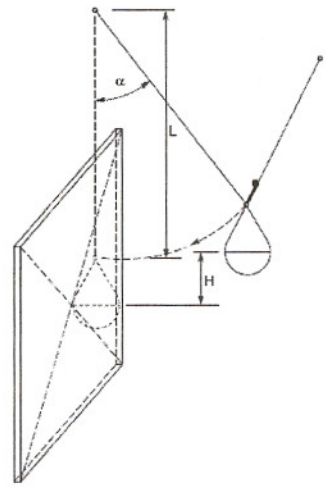

Figure 1: Impact Resistance Test Setup

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Table 1: Impact resistance test results for 60 cm x 120 cm x 12 mm samples.

Sample Number	Sample size	Span length	Backing mesh	Energy (Nm)	H (cm)	Crack at facade element	Falling piece	Cutting Edges	Penetration	Deformation on Carrying System	Deformation on the stone (mm)
1	60cmx120cmx12mm	60 cm	√	60	12	Yes	No	No	No	No	-
2	60cmx120cmx12mm	60 cm		60	12	Yes	No	No	No	No	-
3	60cmx120cmx12mm	60 cm		100	20	Yes	No	No	No	No	-
4	60cmx120cmx12mm	60 cm		130	26	Yes	Yes	Yes	No	No	-
5	60cmx120cmx12mm	60 cm		150	30	Yes	Yes	Yes	Yes	No	-
6	60cmx120cmx12mm	60 cm		300	60	Yes	Yes	Yes	Yes	No	-
7	60cmx120cmx12mm	60 cm	X	100	20	No	No	No	No	No	-
8	60cmx120cmx12mm	60 cm		130	26	Yes	No	No	No	No	-
9	60cmx120cmx12mm	60 cm		130	26	No	No	No	No	No	-
10	60cmx120cmx12mm	60 cm		130	26	No	No	No	No	No	-
11	60cmx120cmx12mm	60 cm		200	40	Yes	No	No	No	No	2
12	60cmx120cmx12mm	60 cm		300	60	Yes	No	No	No	No	4
13	60cmx120cmx12mm	60 cm		400	80	Yes	No	No	No	No	7
14	60cmx120cmx12mm	60 cm		400	80	Yes	No	No	No	No	7
15	60cmx120cmx12mm	60 cm		400	80	Yes	No	No	No	No	3
16	60cmx120cmx12mm	60 cm		700	140	Yes	No	No	No	No	25
17	60cmx120cmx12mm	60 cm		900	180	Yes	No	No	No	No	40

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Tablo 2: Impact resistance test results for 30 cm x120 cm x12 mm samples

Sample no	Sample size	Span length	Backing mesh	Energy (Nm)	H (cm)	Crack at facade element	Falling piece	Cutting Edges	Penetration	Deformation on Carrying System	Deformation on the stone (mm)
18	30cmx120cmx12mm	60 cm		60	12	Yes	No	No	No	No	2
19	30cmx120cmx12mm	60 cm		100	20	Yes	No	No	No	No	25
20	30cmx120cmx12mm	60 cm		130	26	Yes	No	No	No	No	30
21	30cmx120cmx12mm	60 cm	√	130	26	Yes	No	No	No	No	20
22	30cmx120cmx12mm	60 cm		200	40	Yes	Yes	Yes	Yes	No	-
23	30cmx120cmx12mm	60 cm		200	40	Yes	Yes	Yes	Yes	No	-
24	30cmx120cmx12mm	60 cm		300	60	Yes	Yes	Yes	Yes	No	-
25	30cmx120cmx12mm	60 cm		100	20	Yes	No	No	No	No	5
26	30cmx120cmx12mm	60 cm		100	20	Yes	No	No	No	No	9
27	30cmx120cmx12mm	60 cm	X	130	26	Yes	No	No	No	No	10
28	30cmx120cmx12mm	60 cm		130	26	Yes	No	No	No	No	10
29	30cmx120cmx12mm	60 cm		700	140	Yes	No	No	No	No	25

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