

## TEST REPORT

**DATE OF REPORT** : 7<sup>th</sup> JANUARY 2019

**SPECIMENS** : **DECORATIVE PRODUCTS FOR EXTERIOR INSULATION SHEATHING AND FRAMING** (materials made of Rockwool and EPS coated with a plaster)

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The products supplied by the manufacturer mentioned above were tested in our laboratory and the results are presented below.

Test	Test equipment/conditions	Result
<b>UV Resistance</b>	<ul style="list-style-type: none"> <li>• X-Rite Model 962-964 spectrophotometer</li> <li>• Erichsen Solarbox 1500 1000 W/ m<sup>2</sup></li> <li>• Tested for 14 days (336 hours, this period corresponds to approximately 10 years)</li> </ul>	<p>After testing, no change in mechanical and material characteristics of the specimens was observed, where</p> <p><math>\Delta E_{\text{Rockwool}} = 2,76</math></p> <p><math>\Delta E_{\text{EPS}} = 3,16</math></p>
<b>Impact Test</b>	<ul style="list-style-type: none"> <li>• Erichsen impact tester</li> <li>• with a weight of 2 and 1 kg from the distance of 50 and 10 cm for Rockwool and EPS specimens, respectively.</li> </ul>	<p>When a weight of 2 kg was vertically dropped off from the distance of 50 cm onto the Rockwool specimen, no cracking on the specimen surface was observed.</p> <p>When a weight of 1 kg was vertically dropped off from the distance of 10 cm onto the Rockwool specimen, no cracking on the specimen surface was observed.</p>
<b>Thermal Shock</b>	<ul style="list-style-type: none"> <li>• Heraeus oven and BOSCH -no frost fridge</li> <li>• After keeping specimens at +80 °C for 30 minutes, they are placed in the fridge at -80 °C for 30 minutes. The procedure is repeated for 10 cycles.</li> </ul>	<p>Both of the specimens were remained intact.</p>

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<b>Adhesion</b>	<ul style="list-style-type: none"><li>Manually</li></ul>	The plaster coatings on both specimens could not be removed from the surface. The adhesion was graded as good.
<b>Abrasion test</b>	<ul style="list-style-type: none"><li>Taber Abraser S5131</li><li>1000 cycles with a load of 2x500 g.</li></ul>	After testing, the amount of the weight loss on Rockwool and EPS specimens were 0.16 wt.-% and 0.53 wt.-%, respectively. It is concluded that the abrasion resistance of the specimens tested was graded as good.
<b>Fire test</b>	<ul style="list-style-type: none"><li>Bunsen burner</li><li>Timer</li><li>Thermometer, Consort, Model T550</li></ul>	<p>After removing its plaster part, EPS specimen was exposed to fire. It withstood up to the temperature of 300 °C and began softening at 500 °C. As soon as the specimen was removed away from the flame, it extinguished spontaneously.</p> <p><b>Conclusion:</b> According to DIN 4102, the EPS specimen was classified as B1 class “hardly burning material.”</p>

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Signatures above are confirmed.

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