

## Determination of external fire exposure to roofing of according to CEN TS 1187:2012, Test 2

<b>Requested by</b>	<b>Donleon OÜ</b> Henrik Antsov Pärna allee 15-8 60532 Tartu vald, Estonia henrik@donleon.ee																
<b>Order ref.</b>	28 August 2019 / Henrik Antsov																
<b>Contact person</b>	<b>Eurofins Expert Services Oy</b> Jere Heikkinen Kivimiehentie 4 FI-02150 Espoo, Finland JereHeikkinen@eurofins.fi																
<b>Product</b>	<p>The customer gave the following information about the product:</p> <p>Product name: <b>Bronya Aquablock NG</b> Manufacturer: OOO NPO "BRONYA" Product description: Polymer waterproofing Bronya AquaBlock NG is designed for indoor and outdoor use and is applied to cement screed, concrete, metal, plastic, wood, or any other old waterproofing surfaces and other roofing materials in order to waterproof the foundation, walls, floors, balconies, roofs, inter panel joints, pools, tanks, etc.</p> <p>Product composition:</p> <table><tr><td>Ceramic Hollow Microspheres</td><td>(15 %)</td></tr><tr><td>Acrylic (Acryl)</td><td>(25 %)</td></tr><tr><td>Corrosion Inhibitor</td><td>(1 %)</td></tr><tr><td>Silicon-Organic (Silicone) Modifier</td><td>(1 %)</td></tr><tr><td>Nitrile-acrylic additives</td><td>(1 %)</td></tr><tr><td>Ammonium Polyphosphate</td><td>(15 %)</td></tr><tr><td>Melamine</td><td>(25 %)</td></tr><tr><td>Water</td><td>(17 %)</td></tr></table> <p>Typical dry film thickness: 1 - 3 mm Spreading rate or mass per unit area: 1,0 - 1,2 kg/m<sup>2</sup></p>	Ceramic Hollow Microspheres	(15 %)	Acrylic (Acryl)	(25 %)	Corrosion Inhibitor	(1 %)	Silicon-Organic (Silicone) Modifier	(1 %)	Nitrile-acrylic additives	(1 %)	Ammonium Polyphosphate	(15 %)	Melamine	(25 %)	Water	(17 %)
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<b>Sample</b>	The sample of the product was chosen by the customer. Date of delivery: 20 September 2019 Type of sample: Ready-made specimens of product on fiber reinforced calcium silicate board of density $(680 \pm 50)$ kg/m <sup>3</sup> and thickness $(10 \pm 2)$ mm from Eurofins. Customer gave the following information about the specimen: Mass per unit area of product on substrates: 1,0 kg/m <sup>2</sup>
<b>Test specimens</b>	Customer made six test specimens with dimensions of 400 mm x 1000 mm with the following construction: <ul style="list-style-type: none"> <li>- Bronya Aquablock NG spread on,</li> <li>- Calcium silicate board of density <math>(680 \pm 50)</math> kg/m<sup>3</sup> and thickness <math>(10 \pm 2)</math> mm</li> </ul> The specimens were conditioned to constant mass at a temperature of $23 \pm 2$ °C and the relative humidity of $50 \pm 5$ %.
<b>Date of test</b>	1 October 2019
<b>Test method</b>	CEN TS 1187:2012, Test methods for external exposure to roofs - <i>Test 2: Method with burning brands and wind.</i>
<b>Test results</b>	Test results are presented in Appendix 1.
<b>Note</b>	The results relate to the behaviour of the test specimen of a product under the particular conditions of the test, they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.  Eurofins Expert Services Ltd is a notified body 0809 concerning the Construction Products Regulation (CPR).

**Espoo, 8 October 2019**

*Jere Heikkinen*  
Expert

Appendices	Appendix 1	Test results
Distribution	Customer	Electronically approved

**TEST RESULTS**

**Product:** Bronya Aquablock NG  
**Test method:** CEN TS 1187:2012, Test 2  
**Substrate:** fiber reinforced calcium silicate board

Table 1. Results of tests.

Wind velocity	2 m/s				4 m/s			
	1	2	3	Mean	1	2	3	Mean
Covering ignited, min:s	**	**	**	-	**	**	**	-
Flames extinguished, min:s	3:01	2:54	3:13	<b>3:03</b>	2:23	2:23	2:08	<b>2:18</b>
Glowing ended, min:s	7:22	7:16	8:13	<b>7:37</b>	5:10	5:26	5:23	<b>5:20</b>
Length of damage in membrane, mm*	64	66	61	<b>64</b>	78	68	71	<b>72</b>
Length of damage in substrate, mm*	0	0	0	<b>0</b>	0	0	0	<b>0</b>

\*) Measured from the middle of the ignition source

\*\*) No visible ignition