

FIRE PROTECTION EXPERTISE

Client: **ICL Kft.** 6000 Kecskemét, Mátyás Király krt. 52.

Specimens: S-containing light concrete (developed and manufactured by client)

Date of tests: 12 November 2020

Test method: EN 1182 1182: Reaction to fire tests for products — Non- combustibility test,

Conditioning: Test atmosphere: 22 °C , relative humidity: 55 %

Test apparatus: Fire Testing Technology Limited (2015)

Classification: According to EN 13501-1:2018 Fire classification of construction products and building elements-Part 1: Classification using data from reaction to fire test

Test Criteria: The test shall be considered for A1 as passed if the following conditions

$\Delta T \leq 30^{\circ}\text{C}$; and

$\Delta m \leq 50\%$; and

$t_f = 0$ (i.e. no sustained flaming)

Test results:

Maximum oven temperature - T_m : 762.7 °C

Final stabilized oven temperature - T_f : 753.9 °C

Temperature increase - $\Delta T = T_m - T_f$: 8.8 °C

sustained flaming: no, $t_f = 0$

Weight loss: 26 % (m_0 : 101 g, m_t : 74 g)

Comment : No flame or smoke was observed during the entire test period (1 hour). The E / PS additives did not burn with a flame, they melted on the surface, cavities remained.

Expertise: For the A1 classification, the non-flammability test according to EN 1182 is sufficient, no heat test is required as the sample did not burn. Thin cracks appeared on the surface of the sample (cylinder mantle and top).

The fire protection parameters of E/PS lightweight concrete comply to the A1 rating with EN 1182 test according to EN 13501 Part 1.

Statement: Test results are valid and describe the properties of materials only under controlled laboratory conditions and should not be used to describe the fire hazard of materials, products under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use. Results are only applicable for the samples tested. Test report may only be photocopied in an unchanged full format.

Budapest, 13 November 2020



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