

MINISTRY OF INTERIOR OF THE SLOVAK REPUBLIC
FIRE RESEARCH INSTITUTE – PTEU MV SR
Testing Laboratory for Product Assessment

Authorized Body MDV RR SR with Reg. No. SK 53
 Notified Body with Reg. No. 2507
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Reg. No. 011/S-084

Testing Protocol No. 44/2015/1/A

on the test according to

EN ISO 1716: 2010 (STN EN ISO 1716: 2010) Reaction to fire tests for products.
Determination of the gross heat of combustion (calorific value).

No.: PEU2 – 60/2015	Number of pages of the Protocol: 2
Number of issues: 2	Issue No. 1: Client
Issue No.: 1	Issue No. 2 : Testing Laboratory
Client: 1. FIRES, s.r.o., Osloboditeľov 282, 059 35 Batizovce, Slovakia 2. World Mech´Tech´Co., Ltd, 8-105, Jangjae-ro 520 beon-gil, Saengnim-myeon, Gimhae-si, Gyeongsangnam-do, Korea	

SUBJECT OF TESTS:

Name:	Fire resistant material based on polyethylene with mineral fillers
Producer:	World Mech´Tech´Co., Ltd, 8-105, Jangjae-ro 520 beon-gil, Saengnim-myeon, Gimhae-si, Gyeon-gsangnam-do, Korea
Production standard:	Not specified
Sample Identification Number:	44/15
Date of sample receiving:	March 11 th , 2015
Sampling:	Submitted by the client
Date of test carried out:	March 23 rd , 2015

Characteristics, preparation of testing specimen and test conditions:

Testing specimen is a fire resistant material based on polyethylene with mineral fillers. Product composition: Al(OH)₃ - 90%, PE - 5%, additives 5%(calcium oxide, silicon di-oxide, aluminium oxide). It is used in a building industry. The specimen was conditioned pursuant to the STN EN 13238: 2010, Clause 4 and tested in such state as submitted by the client. Temperature in the testing room during measurement was (24.0 ± 0.2)°C. The test was carried out in the Calorimeter IKA C 5000. The Calorimeter Water Equivalent was 0.01 MJ.K⁻¹.

Recorded measured values and test results:

Total heat of combustion - Specimen No. 1 [MJ.kg ⁻¹]	Total heat of combustion - Specimen No. 2 [MJ.kg ⁻¹]	Total heat of combustion - Specimen No. 3 [MJ.kg ⁻¹]	Total heat of combustion of material [MJ.kg ⁻¹]
0.654	0.548	0.694	(0.632±0.132)

During specimen combustion, unburned residues originated.

Material "Fire resistant material based on polyethylene with mineral fillers" in the calorimetric pressure vessel in the compressed oxygen environment reached total calorific value:

$(0.632 \pm 0.132) \text{ MJ.kg}^{-1}$.

Tests were carried out in accordance with the STN EN ISO 1716:2010 without any modification.

Test results refer to characteristics of testing specimens of product under specific test conditions; these results are not intended to be the only one criterion for potential hazard evaluation of the construction product used.

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Date: March 24th, 2015

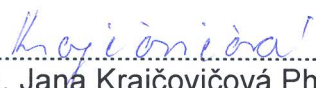
The test carried out by: _____


Ing. Stanislav Flimel

Record processed by: _____


Ing. Stanislav Flimel

Approved by: _____


Ing. Jana Krajčovičová Ph.D.
Head of the Testing Laboratory

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