Instytut Techniki Budowlanej (ITB)
Group of Testing Laboratories
accredited by the Polish Centre for Accreditation
Accreditation Certificate No. AB 023

TEST REPORT
LZP01-02146/24/Z00NZP-ENG

Client:	Fiberplast Biobased B.V. De Boeg 24 9206 BB DRACHTEN The Netherlands
Product name: **(as specified by the Client)**	Open facade system RIWOOD
Date of issue:	28.10.2014

Fire Testing Laboratory (LZP)
fire@itb.pl

1. Information on the tests

Test start date: 30.09.2024

Test completion date: 30.09.2024

Test location:

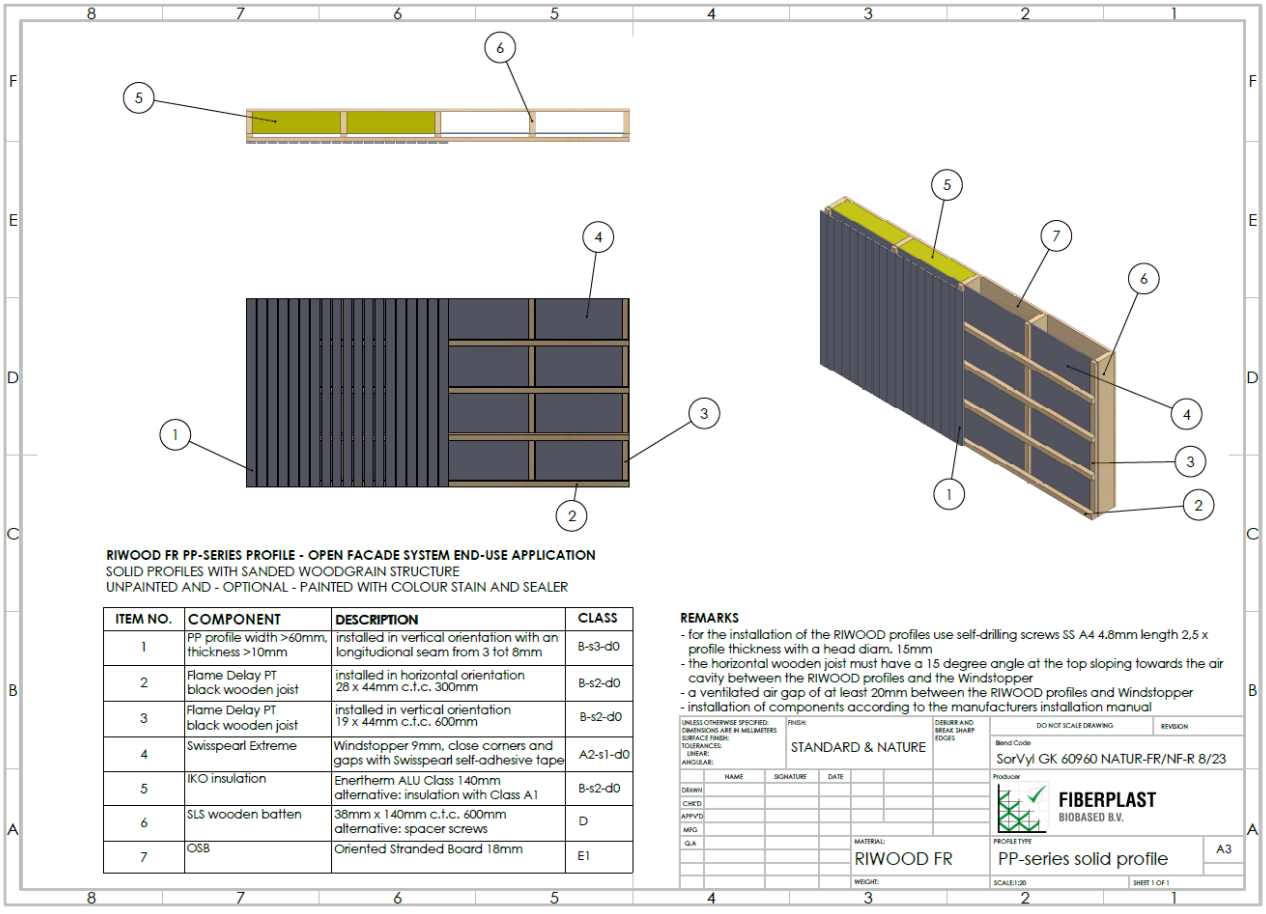
In the laboratory LZP, in the following location: 2 Przemysłowa Str., 26-670 Pionki, Poland.

2. Product

2.1. Information provided by the Client

Product:

Open facade system RIWOOD.



Description of interior strips:

- Nominal thickness minimum 10mm
- Nominal width minimum 60mm
- Surface structure: sanded woodgrain structure
- Type of profile: solid rectangular profile
- Optional coating System: color stain and sealer

Declared range of application: Open facade system.

3. Test item, sample

3.1. Information provided by the Client

Sample origin:

The product sample was provided by the Client in accordance with the Laboratory's recommendations

3.2. Information obtained based on visual inspection in the Laboratory

Acceptance of the test item into the laboratory:

Date: 26.09.2024

Acceptance protocol: LZP01-02146/24/Z00NZP

Condition of the test item:

The product sample was provided in a condition and quantity suitable for testing.

Description of the test item:

Thickness samples: 22,5 cm 1508,6 g
Thickness lamellas: 10,1 mm
Width lamellas: 60 mm
Surface mass of lamellas: 16,22 kg/m^2

Storage of the test item:

Test specimens were conditioned from 26.09.2024 to 30.09.2024 at temperature 23 ± 2°C, relative humidity 50 ± 5% until a constant weight was reached.

4. Test results

4.1. Reaction to fire test

4.1.1. Test method

PN-EN 13823+A1:2022-12

The implementation of the test, environmental conditions, and the accuracy of the measuring devices used are in accordance with the requirements of the above-mentioned standards.

Substrate made of chipboard board in accordance with PN-EN 13238+A1:2014.

Table 1 Test conditions

Parameter / Unit	Specimen 1	Specimen 2	Specimen 3
Fume volume flow [m^3/s]	0.572-0.625	0.583-0.621	0.581-0.616
Ambient temperature [°C]	24.91	25.89	26.04
Ambient pressure [kPa]	99.495	99.461	99.423
Relative humidity [%]	46.2	44	43.3

4.1.2. Results

Table 2 Test results

Parameter / Unit	Specimen 1	Specimen 2	Specimen 3	Average value
FIGRA $_{0,2\ MJ}$ [W/s]	38.7	28.4	39.4	35.5
FIGRA $_{0,4\ MJ}$ [W/s]	38.7	28.4	39.4	35.5
THR $_{600\ s}$ [MJ]	1.9	2.1	2.0	2.0
SMOGRA [m^2/s^2]	42.0	49.8	45.5	45.7
TSP $_{600\ s}$ [m^2]	437.2	543.1	525.9	502.1

Table 3 Observations

Recorded events	Specimen 1	Specimen 2	Specimen 3
Lateral flame spread on the long specimen wing up to the edge of the specimen LFS [m]	0.25	0.25	0.25
Flaming droplets/particles in the first 600 s of the test, which flame less than 10 s (+/-)	-	-	-
Flaming droplets/particles in the first 600 s of the test, which flame more than 10 s (+/-)	-	-	-
Surface flash (+/-)	+	+	+
Falling of specimens parts (+/-)	-	-	-
Smoke entering the hood (+/-)	-	-	-
Damage of the mutual fixing of backing boards (+/-)	-	-	-
Distortion/collapse of the specimen (+/-)	-	-	-
Early termination of the test (+/-)	-	-	-

5. Assessment of the conformity of test results with the criteria

In accordance with the provisions of the PN-EN 13501-1:2019-02 standard, the assessment of compliance of the results with the criteria is included in classification report no 02146/24/Z00NZP-ENG.

The parties agreed that when assessing the compliance of the results with the criteria in accordance with the PN-EN 13501-1:2019-02 standard, the simple acceptance rule is applied. This means that the acceptance limits are equal to the tolerance limits presented in the above-mentioned document.

Factors influencing the risk associated with the performance assessment carried out:

- the uncertainty of measurement as presented in Annex 1 for this test report,
- the uncertainty of the test method is not presented in the test standard,
- the level of representativeness of the sample tested by the laboratory in relation to the product population – knowledge of the variability of the product population and the representativeness of the sample provided to the laboratory is held by the manufacturer.

6. Disclaimers

The Testing Laboratory declares that the test results relate only to the sample received.

The test 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.

The Test Report cannot be reproduced in any other form than as a whole without written permission of the Laboratory.

The Test Report does not replace documents required for placing construction products on the market or making them available.

This report has been issued in electronic form, with qualified electronic signatures of the persons responsible. A printout of this report is not an original document.

7. Annexes:

1. Photos of test specimen installation in the test apparatus, graphs of classification parameters, and calculation of extended uncertainties of test results.

Person responsible for tests
Łukasz Jarochowicz
e-signature

Person authorising the report
Bartłomiej K. Papis PhD. Eng.
e-signature

Head of the Laboratory LZP
Bartłomiej K. Papis PhD. Eng.
e-signature

A document bearing a qualified electronic signature whose certificate has already expired is still valid (the certificate was valid on the day the document was signed).

END OF THE REPORT

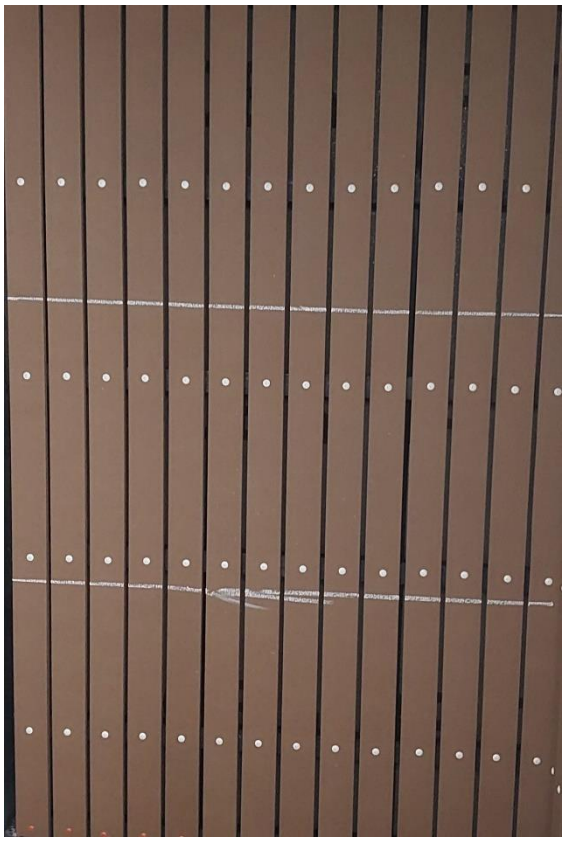
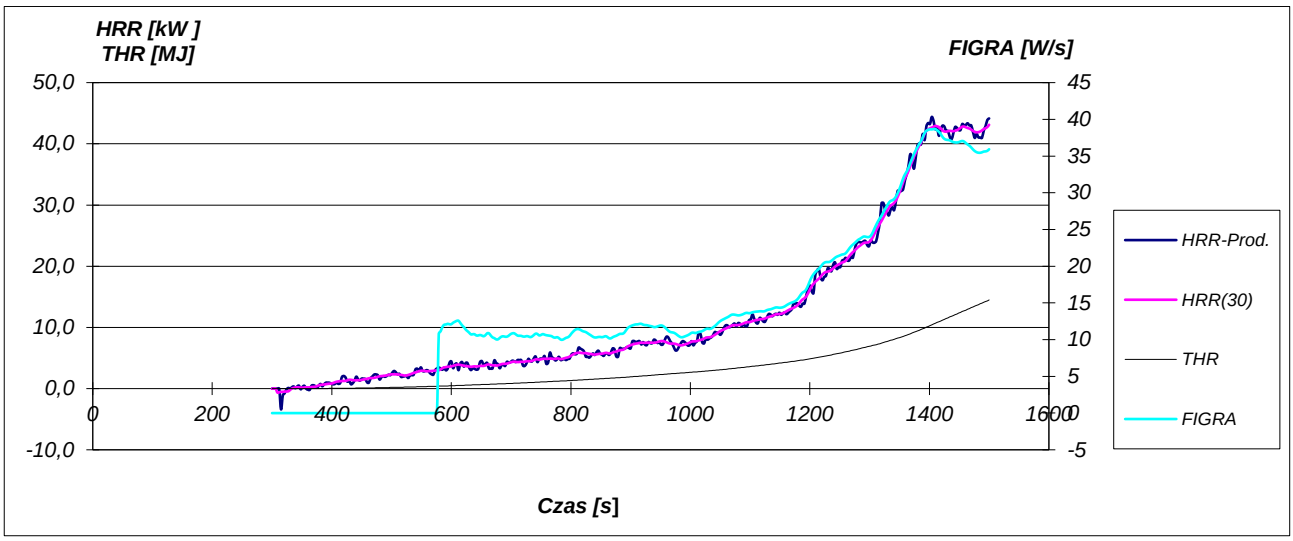
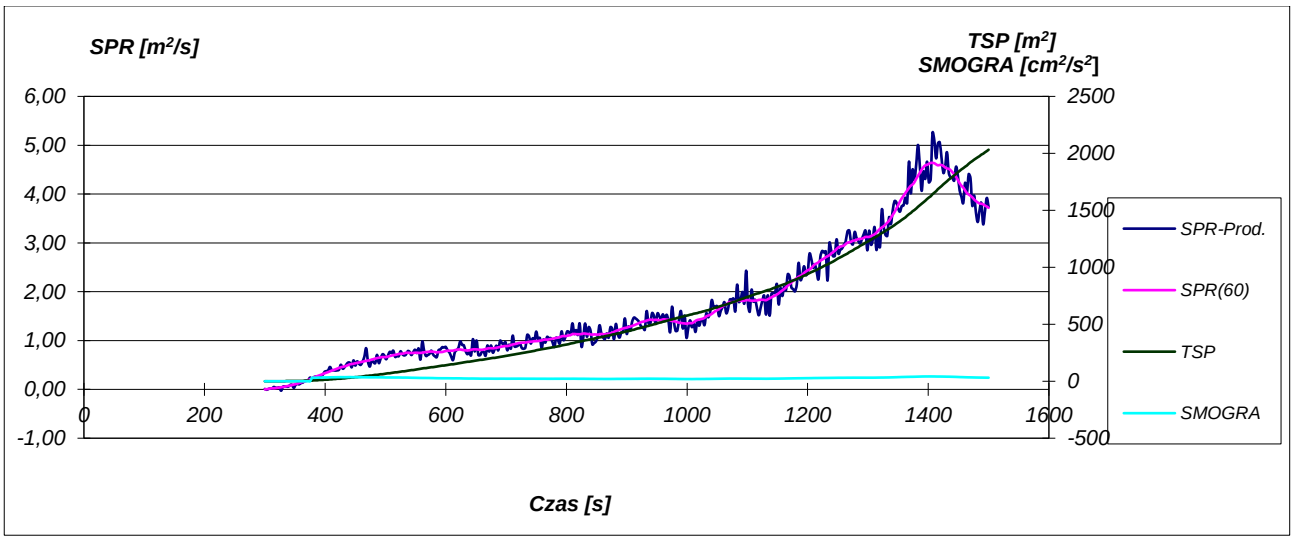


Photo 1 Total view of the exposed surface of the long wing

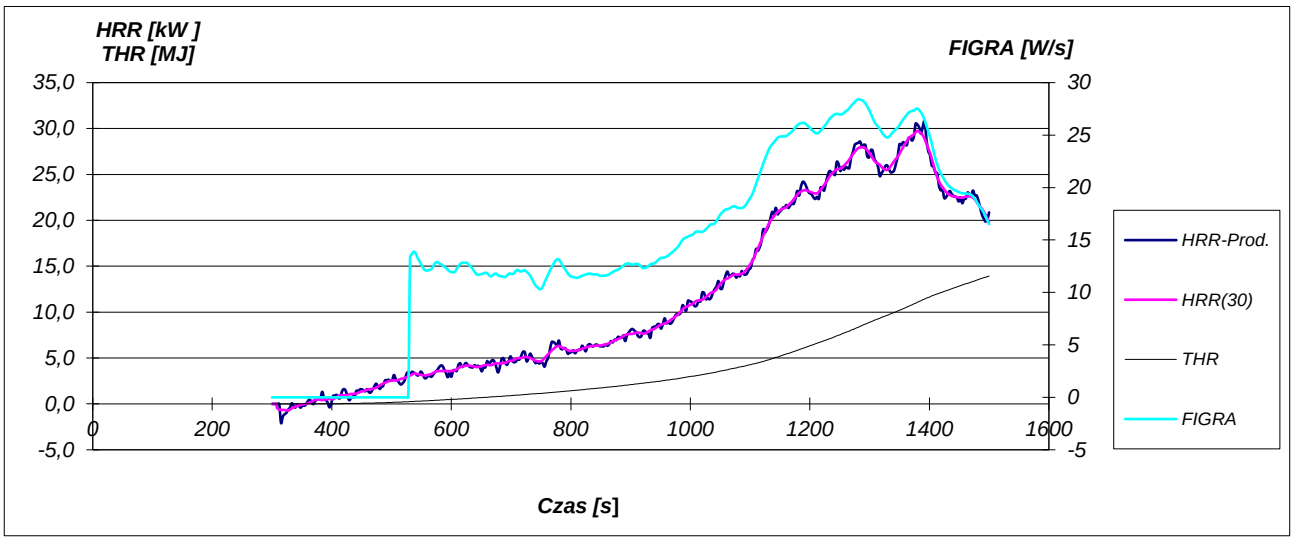
Photo 2 Close-up of the vertical outer edge of the long wing at a height of 500 mm above the floor of the trolley



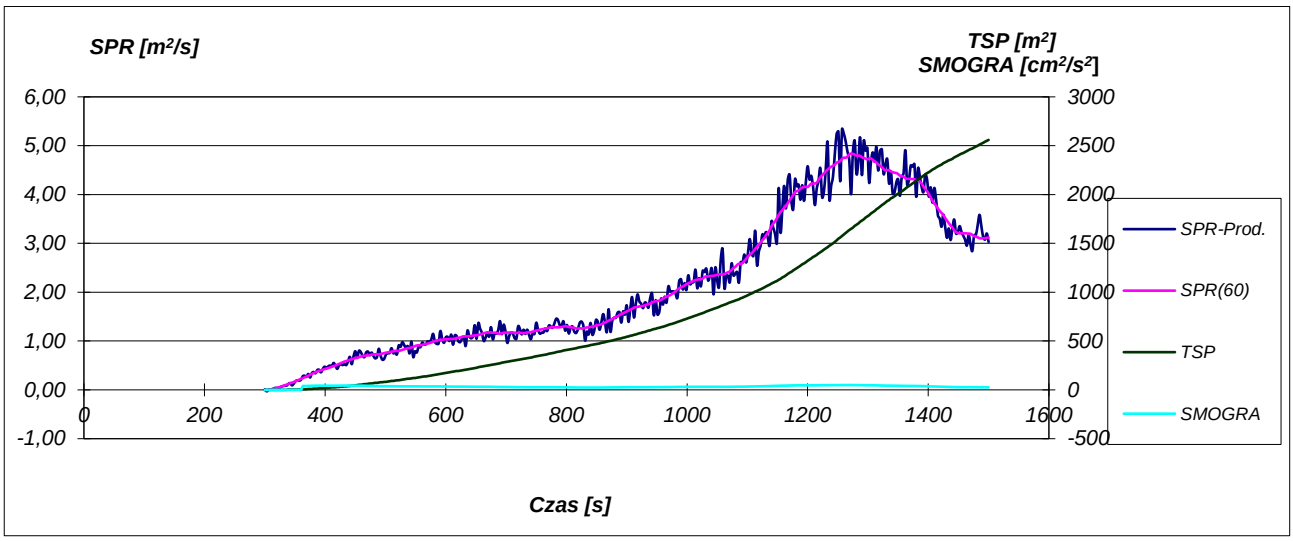
Graph 1 Plot of HRR, THR, and FIGRA as a function of specimen no 1 test duration.



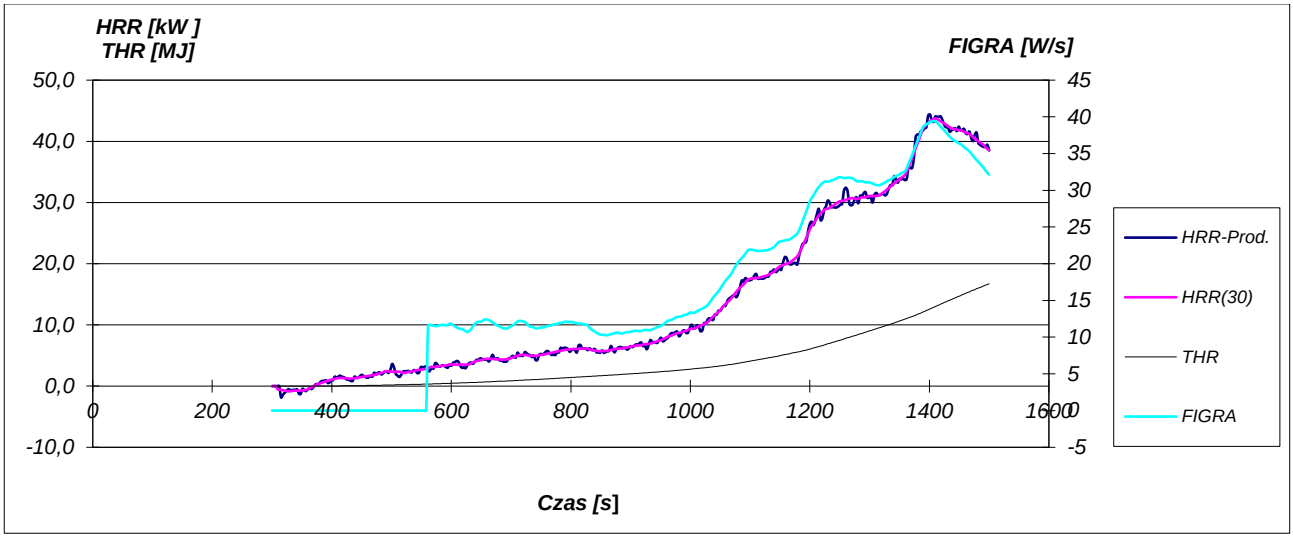
Graph 2 Plot of SPR, TSP, and SMOGRA as a function of specimen no 1 test duration.



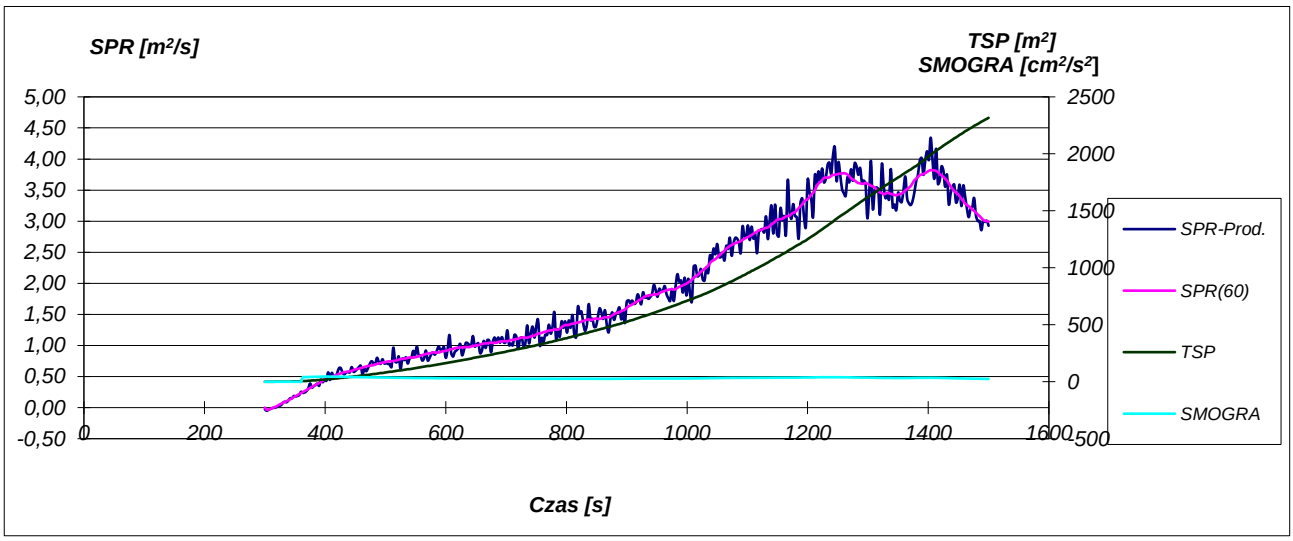
Graph 3 Plot of HRR, THR, and FIGRA as a function of specimen no 2 test duration.



Graph 4 Plot of SPR, TSP, and SMOGRA as a function of specimen no 2 test duration.



Graph 5 Plot of HRR, THR, and FIGRA as a function of specimen no 3 test duration.



Graph 6 Plot of SPR, TSP, and SMOGRA as a function of specimen no 3 test duration.

Table. 4 Expanded uncertainties of test results (related to the accuracy of the devices used), determined according to EN/TR 16988

			U	k		$\bar{X}$ - U	$\bar{X}$ + U
Specimen 1							
$FIGRA_{0,2MJ}$	38,7	±	1,7	2,0		37,0	40,4
$FIGRA_{0,4MJ}$	38,7	±	1,7	2,0		37,0	40,4
THR_{600s}	1,9	±	0,1	2,0		1,8	2,0
SMOGRA	42,0	±	1,0	2,0		41,0	43,0
TSP_{600s}	437,2	±	3,6	2,0		433,6	440,8
Specimen 2							
$FIGRA_{0,2MJ}$	28,4	±	1,5	2,0		26,9	29,9
$FIGRA_{0,4MJ}$	28,4	±	1,5	2,0		26,9	29,9
THR_{600s}	2,1	±	0,1	2,0		2,0	2,2
SMOGRA	49,6	±	1,1	2,0		48,5	50,7
TSP_{600s}	543,1	±	4,3	2,0		538,8	547,4
Specimen 3							
$FIGRA_{0,2MJ}$	39,4	±	1,7	2,0		37,7	41,1
$FIGRA_{0,4MJ}$	39,4	±	1,7	2,0		37,7	41,1
THR_{600s}	2,0	±	0,1	2,0		1,9	2,1
SMOGRA	45,5	±	1,4	2,0		44,1	46,9
TSP_{600s}	525,9	±	4,2	2,0		521,7	530,1
Average value							
$FIGRA_{0,2MJ}$	35,5	±	1,6	2,0		33,9	37,1
$FIGRA_{0,4MJ}$	35,5	±	1,6	2,0		33,9	37,1
THR_{600s}	2,0	±	0,1	2,0		1,9	2,1
SMOGRA	45,7	±	1,2	2,0		44,5	46,9
TSP_{600s}	502,1	±	4,0	2,0		498,0	506,1

The determination of uncertainty takes into account both the variability due to the measurement and the variability due to the selection of samples.

The result with its uncertainty applies only to the tested samples. The uncertainty value cannot be assigned directly to the level of a given product's properties, because the laboratory does not know about the variability of its population, but only about the tested sample.