

**CREPIM**

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SIRET 792 178 816 00015 / APE 7112B / T.V.A. FR85 792 178 816

# CLASSIFICATION REPORT FOR FIRE BEHAVIOUR OF A MATERIAL

Validity 5 years from 21<sup>st</sup> June 2017

According to the Decree of 21<sup>st</sup> of November 2002 on the reaction to fire performance of construction and furniture  
Laboratory approved by Ministry of Interior (Decree of 23/03/2010 amending the decree of 05/02/1959 as amended)

« En cas de litige, seule l'édition originale en français du présent procès-verbal fait foi »

Non official Certificate  
English translation of attached official Procès-Verbal  
n°1677/13/163 A

And annex of 3 pages

**Material submitted by:** ARMACELL  
Rue des Trois Entités, 9 Z.I. Les Plenesses  
B-4890 Thimister-Clermont  
Belgium

**Commercial reference:** ArmaFORM PET GFR70

**Brief description:** Fire retardant PET foam (halogen free), made by extrusion and welding.  
Field of application: Railway  
Tested nominal thicknesses: 10 mm and 25 mm.  
Validated nominal thicknesses: from 10 mm to 25 mm.  
Nominal density: 70 kg/m<sup>3</sup>. / Color: Green.

**Type of tests:** NF P 92-501 – Radiation test  
NF P 92-504 – Flame propagation test  
NF P 92-505 – Dripping test

**Reference of test reports:** REE 1M 1677/13/163 A dated on 21/06/2017  
REE 4M 1677/13/163 A dated on 21/06/2017  
REE 5M 1677/13/163 A dated on 21/06/2017

**Classification:**

**M1**

**Durability of classification:** Not limited in theory.

Thanks to criteria resulting from tests described in the attached report.

This certificate attests only characteristics of the tested sample and does not prejudge characteristics of similar products. It is therefore not a product certification within the meaning of article L. 115-27 of the consumer code and the act of June 3, 1994.

"Valid for applications not covered by EC marking"

"Valid on the face of use for any application not covered by article AM18 of the ERP regulation concerning the padded seats"

Under approval of the President, Franck POUTCH

  
Skander KHELIFI

Bruay-la-Buissière, 21<sup>st</sup> of June 2017  
Responsible for the classification

  
Thomas TURF

Note. – Only full reproduction and photocopy of the present classification report or the whole classification report and the attached report are authorized.

## Test Report

<p><b>Test Report n°</b> REE 1M 1677/13/163 A</p> <p><b>Date</b> 21/06/17</p> <p><b>Manager</b> Skander KHELIFI</p> <p><b>Order number</b> ACB 170544</p> <p><b>Date of order</b> 09/06/17</p> <p><b>Pages</b> 1 on 1</p>	<p style="text-align: center;"><b>To</b></p> <p><b>Company</b> ARMACELL Benelux SA</p> <p><b>Name</b> Christoph Justen</p> <p><b>Address</b> Rue des Trois Entités, 9 Z.I. Les Plénesses</p> <p><b>Postcode</b> B-4890      <b>Town</b> Thimister-Clermont</p> <p><b>Country</b> Belgium</p>
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**Test standard :** **NF P 92-501:1995** : Radiation test used for rigid materials, or for materials on rigid substrates of all thicknesses, and for flexible materials thicker than 5 mm.

**Accredited COFRAC test :** COFRAC accreditation attests competence of the laboratories for the only tests covered by the accreditation

**Tested Product**

**Name :** ArmaFORM PET GFR70

**Description :** Fire retardant PET foam (halogen free), made by extrusion and welding

**Density :** 70 kg/m<sup>3</sup> (declared)

**Color :** Green

**Remarks :** Manufacturing batch numbers : VB17/050.1 (thickness: 10mm) and VB17/050.2 (thickness: 25mm)

**Size :** 400 mm x 300 mm x 10 mm and 400 mm x 300 mm x 25 mm

**Conditionning :** 23 ± 2 °C, 50 ± 5 % HR

*The results are valid only for the fire-test-exposure conditions described in this procedure and for the specimens assessed.*

**Test Date :** 20/06/17

	Results			
	Test 1	Test 2	Test 3	Test 4
<b>Thickness (mm)</b>	<b>10</b>		<b>25</b>	
ti1 (s)	Shrinking without ignition	Shrinking without ignition	265	147
ti2 (s)			/	/
td1 (s)			/	/
td2 (s)			/	/
e1 (s)			339	300
e2 (s)			/	/
<b>Inflammation length (s)</b>			74	153
<b>Total height (cm)</b>			0	0
<b>q value - NF P 92-507</b>	0,0	0,0	0,0	0,0

*ti1/td1/e1 : time of ignition / recording / extinction of the exposed face.*  
*ti2/td2/e2 : time of ignition / recording / extinction of the unexposed face.*

**Observations :** 10 mm thick samples shrink away to form a hole, and flaming droplets are observed during the tests performed on 25 mm thick samples. In accordance with the standard NF P 92-507, the complementary tests NF P 92-504 and NF P 92-505 have to be performed on the 10 mm thick samples, and NF P 92-505 on the 25 mm thick samples.

R. AZAOUAGH Test Officer		F. POUTCH Président
S. KHELIFI Technical Manager		



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ACCREDITATION N°1-5860  
Scope on request @ [www.cofrac.fr](http://www.cofrac.fr)

Test Report

**Test Report n°** REE 4M 1677/13/163 A

**Date** 21/06/17

**Manager** Skander KHELIFI

**Order number** ACB 170544

**Date of order** 09/06/17

**Pages** 1 on 1

**Company** ARMACELL Benelux SA

**Name** Christoph Justen

**Address** Rue des Trois Entités, 9 Z.I. Les Plénesses

**Postcode** B-4890 **Town** Thimister-Clermont

**Country** Belgium

**Test standard :** NF P 92-504:1995 : Afterflaming and flame spread test

**Accredited COFRAC test :** COFRAC accreditation attests competence of the laboratories for the only tests covered by the accreditation

**Tested Product**

**Name :** ArmaFORM PET GFR70

**Description :** Fire retardant PET foam (halogen free), made by extrusion and welding

**Density :** 70 kg/m<sup>3</sup> (declared)

**Color :** Green

**Remarks :** Manufacturing batch numbers : VB17/050.1 (thickness: 10mm) and VB17/050.2 (thickness: 25mm)

**Size :** 400 mm x 35 mm x 10 mm

**Conditionning :** 23 ± 2 °C, 50 ± 5 % HR

*The results are valid only for the fire-test-exposure conditions described in this procedure and for the specimens assessed.*

**Results**

**Test Date :** 21/06/17 **Reception Date :** 12/06/17

	Flame Spread Test			
	Test 1	Test 2	Test 3	Test 4
Afterflaming Time (s)	Tests not performed			
Flame spread speed (mm/s)				
Dripping				
Flaming droplets				
Afterflaming Test				
Number of afterflaming	8	8	8	6
Maximal afterflaming (s)	2	1	1	1
Dripping	NO	NO	NO	NO
Flaming droplets	NO	NO	NO	NO

**Remarks :** /

R. AZAOUAGH Test Officer		F. POUTCH Président
S. KHELIFI Technical Manager		

The reproduction of this test report is authorized only in its integral form - The test report concerns only the object submitted for testing - To declare or not, the conformity to the specification, it was not expressly kept count of the uncertainty linked to result.



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ACCREDITATION N°1-5860  
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### Test Report

**Test Report n°** REE 5M 1677/13/163 A  
**Date** 21/06/17  
**Manager** Skander KHELIFI  
**Order number** ACB 170544  
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**To**  
**Company** ARMACELL Benelux SA  
**Name** Christoph Justen  
**Address** Rue des Trois Entités, 9 Z.I. Les Plénesses  
**Postcode** B-4890 **Town** Thimister-Clermont  
**Country** Belgium

**Test standard :** NF P 92-505:1995 : Test for melting materials : dripping test

**Accredited COFRAC test :** COFRAC accreditation attests competence of the laboratories for the only tests covered by the accreditation

#### Tested Product

**Name :** ArmaFORM PET GFR70  
**Description :** Fire retardant PET foam (halogen free), made by extrusion and welding  
**Density :** 70 kg/m<sup>3</sup> (declared)  
**Color :** Green  
**Remarks :** Manufacturing batch numbers : VB17/050.1 (thickness: 10mm) and VB17/050.2 (thickness: 25mm)  
**Size :** 70 mm x 70 mm x 10 mm and 70 mm x 70 mm x 25 mm  
**Conditionning :** 23 ± 2 °C, 50 ± 5 % HR

*The results are valid only for the fire-test-exposure conditions described in this procedure and for the specimens assessed.*

#### Results

**Test Date :** 21/06/17

**Reception Date :** 12/06/17

	test 1	test 2	test 3	test 4
Weight (g)	8,0	8,0	7,9	8,0
Thickness (mm)	25,0	25,0	25,0	25,0
Numbre of samples exposed	1	1	1	1
Ignition of the sample	YES	YES	YES	YES
Time to ignition (s)	70	32	48	72
Duration of sustained flame (s)	11	14	10	9
Dripping	YES	YES	YES	YES
Flaming drips	NO	NO	NO	NO
Ignition of cotton wool	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

	test 1	test 2	test 3	test 4
Weight (g)	3,3	3,3	3,3	3,2
Thickness (mm)	10	10	10	10
Numbre of samples exposed	1	1	1	1
Ignition of the sample	YES	YES	YES	YES
Time to ignition (s)	11	9	8	10
Duration of sustained flame (s)	8	8	7	6
Dripping	YES	YES	YES	YES
Flaming drips	NO	NO	NO	NO
Ignition of cotton wool	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

**Remarks :** /

R. AZAOUAGH Test Officer		F. POUTCH Président
S. KHELIFI Technical Manager		