

Mr R Moran
Floorly Ltd
Eccleston Park
Prescot
Merseyside
L34 2QW

17th September 2019
WF No.: 417868 - 417873
Your Order No: 0002

Dear Mr Moran

We confirm that the indicative tests in accordance with IMO Resolution MSC 307(88) (2010 FTP Code): Annex 1: Part 8 on six specimen of your nominally 0.6mm thick coated and uncoated Gabriels upholstery fabric referenced "4" (coated) and "4B" (uncoated), nominally 1.25mm thick coated and uncoated Boge Sounds standard fabric referenced "5" (coated) and "5B" (uncoated) and nominally 1.5mm thick coated and uncoated Sunberry Fabrics Ltd standard fabric referenced "6" (coated) and "6B" (uncoated) (coating referenced "Stainex") tested over non-flame retardant grade polyurethane foam referenced "RP21130" has been completed and the following results have been achieved:

WF No. / reference	417868 / "4" (coated)		417869 / "4B" (uncoated)	
Specimen	Nominally 0.6mm thick Gabriels upholstery fabric			
Propane flame test	Time	Observations	Time	Observations
	00:01 00:09 00:20	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued.	00:01 00:05 00:20	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued.
	01:37	Flaming extinguished by test operator due to excessive flaming and the flaming reaching the top of the specimen.	01:28	Flaming extinguished by test operator due to excessive flaming and the flaming reaching the top of the specimen.
Extent of the damage:		Extent of the damage:		
There was approximately 330mm x 120mm of char observed.		There was approximately 290mm x 130mm of char observed.		

WF No. / reference	417870 / "5" (coated)		417871 / "5B" (uncoated)	
Specimen	Nominally 1.25mm thick Boge Sounds standard fabric			
Propane flame test	Time	Observations	Time	Observations
	00:01 00:04 00:20	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued.	00:01 00:04 00:20	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued.
	01:10	Flaming extinguished by test operator due to excessive flaming and the flaming reaching the top of the specimen.	00:51	Flaming extinguished by test operator due to excessive flaming and the flaming reaching the top of the specimen.
Extent of the damage:		Extent of the damage:		
There was approximately 270mm x 140mm of char observed.		There was approximately 280mm x 150mm of char observed.		

WF No. / reference	417872 / "6" (coated)		417873 / "6B" (uncoated)	
Specimen	Nominally 1.5mm thick Sunberry Fabrics Ltd standard fabric			
Propane flame test	Time	Observations	Time	Observations
	00:01 00:09 00:20 01:10 60:00	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued. Flaming on the surface of the specimen ceased. There was no progressive smouldering or ignition.	00:01 00:10 00:20 00:52 60:00	The burner was placed along the joint. The surface of the specimen ignited. The burner was removed and flaming continued. Flaming on the surface of the specimen ceased. There was no progressive smouldering or ignition.
	Extent of the damage: There was approximately 60mm x 20mm of char observed.		Extent of the damage: There was approximately 60mm x 20mm of char observed.	
Smouldering cigarette test	Time	Observations	Time	Observations
	00:01 29:00 60:00	The cigarette was ignited and placed onto the joint. The cigarette burnt the full length. There was no progressive smouldering or ignition.	00:01 26:00 60:00	The cigarette was ignited and placed onto the joint. The cigarette burnt the full length. There was no progressive smouldering or ignition.
	Extent of the damage: There was approximately 70mm x 20mm of char observed.		Extent of the damage: There was approximately 70mm x 25mm of char observed.	

The specimens were supplied by the sponsor of the test. The samples have been selected and prepared under the supervision of a Senior Certification Engineer at [Warringtonfire](#) Testing and Certification Limited, a Wheelmark and USCG approved Certification Body / Testing Laboratory, notified body number 1121. The application rates shown in this document were measured, have been recorded on file and were stated to be typical application rates for the type of product tested.

This test result relates to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88) (2010 FTP Code); the full requirements of the Standard were not, however, complied with. The information is provided for your information only and shall not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



T Kinder
Senior Technical Officer
Reaction to Fire Testing

Annex A: Waterproofing application rates

Specimen reference	Original weight (g)	Weight after application (g)	Applied amount (g)	Application rate (m²)
"4"	190	224	34	65
"5"	254	303	49	94
"6"	390	433	43	83

Mr R Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

24th September 2019
WF No. 417867
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 2mm thick flooring “3B” comprising an uncoated carpet (“Forbo Floors Flotex Carpet”) tested loose laid over a 3mm thick steel substrate has now been carried out and the following results have been achieved:

Specimen Number	S.O.D. (*)	CO/ppm (1450)	HCL/ppm (600)	HBr/ppm (600)	HF/ppm (600)	HCN/ppm (140)	NOx/ppm (350)	SO ₂ /ppm (**)
1*	466	512	100	ND	ND	36	29	ND

Where ND indicates non-detected.

1* indicates irradiance level of 50kW/m² in the absence of a pilot flame.

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

** indicates the SO₂ must be ≤200 for floor coverings and the SO₂ must be ≤120 for other applications.

*** indicates corrected maximum HCl concentration.

The specimens were supplied by yourselves on the 14th August 2019. Warringtonfire was not involved in any sampling or selection procedure. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417867
TEST: Indicative
DATE: 9th September 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Limited

OBSERVERS: N/A

MATERIAL DESCRIPTION: Nominally 2mm thick flooring "3B" comprising an uncoated carpet ("Forbo Floors Flotex Carpet") tested loose laid over a 3mm thick steel substrate

FACE TESTED: Decorative

TEST MODE: 1* Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	466	39	77	1200

TOXICITY DATA Irradiance level of 50kW/m² in the absence of a pilot flame.

GAS		Limit (ppm)	Reading (ppm)
Carbon Monoxide	CO	1450	512
Hydrochloric Acid	HCl	600	100
Hydrogen Bromide	HBr	600	ND
Hydrogen Fluoride	HF	600	ND
Hydrogen Cyanide	HCN	140	36
Nitrous Fumes	NO _x	350	29
Sulphur Dioxide	SO ₂	**	ND

Where ** indicates the SO₂ must be ≤200 for floor coverings and the SO₂ must be ≤120 for other applications.

*** indicates corrected maximum HCl concentration.

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds	8
Extinction time in seconds	111
Re-ignition time in seconds	*
Extinction time in seconds	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

*Indicative tests are normally performed in the same way as formal tests but on a reduced number of specimens. They are conducted only for the purposes of the sponsor of the test, mainly for research and development purposes. The full conditions of the Standard will not be complied with in terms of number of specimens tested, specimen construction and/or conditioning requirements. Indicative test results should not be accepted as a substitute for formal test results obtained in accordance with the requirements of the standard.

Mr R. Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

24th September 2019
WF No. 417866
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 3.1mm thick carpet referenced as "3" comprising a carpet ("Forbo Floors Flotex Carpet") with a waterproof coating applied at an application rate of 210g/m², tested loose laid over 3mm thick steel substrate, has now been carried out and the following results have been achieved:

Specimen Number	S.O.D. (*)	CO/ppm (1450)	HCL/ppm (600)	HBr/ppm (600)	HF/ppm (600)	HCN/ppm (140)	NOx/ppm (350)	SO ₂ /ppm (**)
1*	306	236	117	ND	ND	26	16	8

Where ND indicates non-detected.

1* indicates irradiance level of 50kW/m² in the absence of a pilot flame.

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

** indicates the SO₂ must be ≤200 for floor coverings and the SO₂ must be ≤120 for other applications.

*** indicates corrected maximum HCl concentration.

The specimens were supplied by yourselves on the 14th August 2019. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121. The application rates shown in this document were measured and are typical application rates for the type of product being tested.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417866
TEST: Indicative
DATE: 28th August 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd.

OBSERVERS: N/A

MATERIAL DESCRIPTION: Nominally 3.1mm thick carpet referenced as "3" comprising a carpet ("Forbo Floors Flotex Carpet") with a waterproof coating applied at an application rate of 210g/m², tested loose laid over 3mm thick steel substrate
FACE TESTED: Decorative

TEST MODE: 1* Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	306	35	404	1200

TOXICITY DATA Irradiance level of 50kW/m² in the absence of a pilot flame.

GAS		Limit (ppm)	Reading (ppm)
Carbon Monoxide	CO	1450	236
Hydrochloric Acid	HCl	600	117
Hydrogen Bromide	HBr	600	ND
Hydrogen Fluoride	HF	600	ND
Hydrogen Cyanide	HCN	140	26
Nitrous Fumes	NO _x	350	16
Sulphur Dioxide	SO ₂	**	8

Where ** indicates the SO₂ must be ≤200 for floor coverings and the SO₂ must be ≤120 for other applications.

*** indicates corrected maximum HCl concentration.

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds	17
Extinction time in seconds	58
Re-ignition time in seconds	*
Extinction time in seconds	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

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Mr R. Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

30th August 2019
WF No. 417865
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 8.2mm thick carpet referenced as "2B" comprising an uncoated carpet ("Forbo Floors Entrance Matting"), tested loose laid over 3mm thick steel substrate has now been carried out and the following results have been achieved:

Test Mode: 50kW/m² in the absence of a pilot flame

Specimen Number	Maximum S.O.D.	Limit
1	300	*

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

The specimens were supplied by yourselves on the 14th August 2019. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417865
TEST: Indicative
DATE: 28th August 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd. **OBSERVERS:** N/A
MATERIAL DESCRIPTION: Nominally 8.2mm thick carpet referenced as "2B" comprising an uncoated carpet ("Forbo Floors Entrance Matting"),, tested loose laid over 3mm thick steel substrate.
FACE TESTED: Decorative

TEST MODE: Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	300	64	257	1200

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds (if applicable)	18
Extinction time in seconds (if applicable)	951
Re-ignition time in seconds (if applicable)	*
Extinction time in seconds (if applicable)	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

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Mr R. Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

30th August 2019
WF No. 417864
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 7.8mm thick carpet referenced as "2" comprising a carpet ("Forbo Floors Entrance Matting") with a waterproof coating applied at an application rate of 242g/m², tested loose laid over 3mm thick steel substrate has now been carried out and the following results have been achieved:

Test Mode: 50kW/m² in the absence of a pilot flame

Specimen Number	Maximum S.O.D.	Limit
1	261	*

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

The specimens were supplied by yourselves on the 14th August 2019. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121. The application rates shown in this document were measured and are typical application rates for the type of product being tested.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417864
TEST: Indicative
DATE: 27th August 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd.

OBSERVERS: N/A

MATERIAL DESCRIPTION: Nominally 7.8mm thick carpet referenced as "2" comprising a carpet ("Forbo Floors Entrance Matting") with a waterproof coating applied at an application rate of 242g/m², tested loose laid over 3mm thick steel substrate.

FACE TESTED: Decorative

TEST MODE: Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	261	42	278	1200

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds (if applicable)	23
Extinction time in seconds (if applicable)	911
Re-ignition time in seconds (if applicable)	*
Extinction time in seconds (if applicable)	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

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Mr R. Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

30th August 2019
WF No. 417863
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 9.7mm thick carpet referenced as "1B" comprising an uncoated carpet ("Brintons Axminster Carpet"), tested loose laid over 3mm thick steel substrate has now been carried out and the following results have been achieved:

Test Mode: 50kW/m² in the absence of a pilot flame

Specimen Number	Maximum S.O.D.	Limit
1	104	*

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

The specimens were supplied by yourselves on the 14th August 2019. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417863
TEST: Indicative
DATE: 27th August 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd. **OBSERVERS:** N/A
MATERIAL DESCRIPTION: Nominally 9.7mm thick carpet referenced as "1B" comprising an uncoated carpet ("Brintons Axminster Carpet"), tested loose laid over 3mm thick steel substrate.
FACE TESTED: Decorative

TEST MODE: Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	104	22	587	1200

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds (if applicable)	18
Extinction time in seconds (if applicable)	1066
Re-ignition time in seconds (if applicable)	*
Extinction time in seconds (if applicable)	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

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Mr R. Moran
Floorly Limited
12 Albany Avenue
Eccleston Park
Prescot
Merseyside
L34 2QW

30th August 2019
WF No. 417862
Your Order No. 0002

Dear Mr Moran,

We confirm that the indicative test in accordance with IMO Resolution MSC 307 (88); Annex 1, Part 2 on one specimen of your nominally 9.9mm thick carpet referenced as "1" comprising a carpet ("Brintons Axminster Carpet") with a waterproof coating applied at an application rate of 589g/m², tested loose laid over 3mm thick steel substrate, has now been carried out and the following results have been achieved:

Test Mode: 50kW/m² in the absence of a pilot flame

Specimen Number	Maximum S.O.D.	Limit
1	104	*

* indicates the SOD must be ≤500 for floor coverings, ≤400 for primary deck coverings and ≤200 for bulkhead wall and ceiling linings.

The specimens were supplied by yourselves on the 14th August 2019. The samples were selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification and Testing Company, notified body number 1121. The application rates shown in this document were measured and are typical application rates for the type of product being tested.

These test results relate to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88); Annex 1, Part 2: the full requirements of the Standard were not, however, complied with. The information is provided for your information only and should not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



Suzanne Jones
Technical Officer
Reaction to Fire Testing

Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
T: +44 (0) 1925 655116

WF No: 417862
TEST: Indicative
DATE: 27th August 2019

IMO/ISO SMOKE & TOXICITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd. **OBSERVERS:** N/A

MATERIAL DESCRIPTION: Nominally 9.9mm thick carpet referenced as "1" comprising a carpet ("Brintons Axminster Carpet") with a waterproof coating applied at an application rate of 589g/m², tested loose laid over 3mm thick steel substrate.

FACE TESTED: Decorative

TEST MODE: Irradiance level of 50kW/m² in the absence of a pilot flame.

SMOKE DATA

Specimen Number	Ds(max)	D (clear beam)	Time to Ds (max)	Test Duration (seconds)
1	104	22	628	1200

OBSERVATIONS

50kW/m ² In The Absence Of A Pilot Flame	
Specimen No.	1
Colour of smoke produced	Light
Expansion distance towards heater (mm)	N/A
Ignition time in seconds (if applicable)	18
Extinction time in seconds (if applicable)	1032
Re-ignition time in seconds (if applicable)	*
Extinction time in seconds (if applicable)	N/A
* = Did Not Re-ignite N/A = Not Applicable	

Tested By: D. Richardson

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Mr R Moran
Floorly Ltd
Eccleston Park
Prescot
Merseyside
L34 2QW

17th September 2019
WF No.: 417856 - 417861
Your Order No: 0002

Dear Mr Moran

We confirm that the indicative tests in accordance with IMO Resolution MSC 307(88) (2010 FTP Code): Annex 1: Part 5 on six specimens of your nominally 10mm thick coated and uncoated Brintons Axminster carpet referenced "1" (coated) and "1B" (uncoated), nominally 8mm thick coated and uncoated Forbo floors entrance matting referenced "2" (coated) and "2B" (uncoated) and nominally 3mm thick coated and uncoated Forbo floors Flotex carpet referenced "3" (coated) and "3B" (uncoated) (coating referenced "Stainex") have been completed and the following results have been achieved:

WF No.	Specimen No. / reference	Specimen	Qsb (MJ/m ²)	CFE (kW/m ²)	Qp (kW)	Qt (MJ)	FD
417856	1. / "1" (coated)	Nominally 10mm thick Brintons Axminster carpet	0.67	6.20	8.16	4.35	>100
417857	2. / "1B" (uncoated)		1.85	5.10	10.54	4.84	>100
417858	3. / "2" (coated)	Nominally 8mm thick Forbo floors entrance matting	0.36	18.10	8.50	2.22	None
417859	4. / "2B" (uncoated)		0.35	17.00	8.96	1.95	None
417860	5. / "3" (coated)	Nominally 3mm thick Forbo floors Flotex carpet	1.00	5.10	9.26	1.36	None
417861	6. / "3B" (uncoated)		1.08	5.50	9.01	1.50	None

Where

Qsb = Heat for sustained burning (≥ 0.25)
CFE = Critical flux at extinguishment (≥ 7.0)
Qp = Peak heat release rate (≤ 10.0)
Qt = Total heat release (≤ 2.0)
FD = Flaming Droplets / debris (≤ 10)

(figures in brackets indicate the criteria for floorcoverings)

The specimens were supplied by the sponsor of the test. The samples have been selected and prepared under the supervision of a Senior Certification Engineer at Warringtonfire Testing and Certification Limited, a Wheelmark and USCG approved Certification Body / Testing Laboratory, notified body number 1121. The application rates shown in this document were measured, have been recorded on file and were stated to be typical application rates for the type of product tested.

This test result relates to an exploratory investigation which utilised the test methodology given in IMO Resolution MSC 307(88) (2010 FTP Code); the full requirements of the Standard were not, however, complied with. The information is provided for your information only and shall not be used to demonstrate performance against the Standard nor compliance with a regulatory requirement. The test was not conducted under the requirements of UKAS accreditation.

If you require any further assistance regarding the interpretation of these test results, please do not hesitate to contact me.

Yours sincerely



T Kinder
Senior Technical Officer
Reaction to Fire Testing

Registered Office: Warringtonfire Testing and Certification Limited, 10 Lower Grosvenor Place, London, United Kingdom, SW1W 0EN. Reg No. 11371436

All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at <https://www.element.com/terms/terms-and-conditions> or upon request.

Warringtonfire
Holmesfield Road
Warrington WA1 2DS
Tel: (01925) 655116

WF No: 417856 - 417861

TEST: Indicative*

DATE: 28th and 29th
 August 2019

IMO/ISO SURFACE FLAMMABILITY TEST
LABORATORY RECORD SHEET

CLIENT: Floorly Ltd

OBSERVERS: --

MATERIAL DESCRIPTION: Nominally 10mm thick coated and uncoated Brintons Axminster carpet referenced "1" (coated) and "1B" (uncoated).

Nominally 8mm thick coated and uncoated Forbo floors entrance matting referenced "2" (coated) and "2B" (uncoated).

Nominally 3mm thick coated and uncoated Forbo floors Flotex carpet referenced "3" (coated) and "3B" (uncoated) (coating referenced "Stainex")

FACE TESTED: Decorative

SUBSTRATE: 3mm thick steel

ADHESIVE: --

Specimen Number / reference:	1. "1" (Coated)	Heat for Sustained Burning (MJ/m ²)	2. "1B" (un-coated)	Heat for Sustained Burning (MJ/m ²)	3. "2" (Coated)	Heat for Sustained Burning (MJ/m ²)	4. "2B" (un-coated)	Heat for Sustained Burning (MJ/m ²)	5. "3" (Coated)	Heat for Sustained Burning (MJ/m ²)	6. "3B" (un-coated)	Heat for Sustained Burning (MJ/m ²)						
Specimen	Nominally 10mm thick Brintons Axminster carpet				Nominally 8mm thick Forbo floors entrance matting				Nominally 3mm thick Forbo floors Flotex carpet									
Time to Ignition	00:01		00:01		00:01		00:01		00:05		00:01							
	min	sec	min	sec	min	sec	min	sec	min	sec	min	sec						
50mm	00	02	0.10	00	05	0.25	00	04	0.20	00	03	0.15	00	10	0.51	00	12	0.61
100mm	00	10	0.50	00	06	0.30	00	05	0.25	00	04	0.20	00	16	0.79	00	17	0.84
150mm	00	13	0.61	00	07	0.33	00	06	0.28	00	05	0.24	00	17	0.80	00	18	0.85
200mm	00	16	0.69	00	09	0.39	00	07	0.30	00	06	0.26	00	20	0.86	00	20	0.86
250mm	00	18	0.68	00	11	0.42	00	10	0.38	00	09	0.34	00	23	0.87	00	24	0.91
300mm	00	20	0.62	00	15	0.46	00	13	0.40	00	14	0.43	00	30	0.93	00	29	0.90
350mm	00	24	0.57	00	24	0.57	00	19	0.45	00	21	0.50	00	44	1.05	00	53	1.27
400mm	00	45	0.82	08	12	8.95	00	36	0.66	00	56	1.02	01	23	1.51	01	32	1.67
450mm	15	43	12.45	12	32	9.93							02	45	2.18	02	34	2.03
500mm	17	55	9.89	12	49	7.07							05	08	2.83	03	30	1.93
550mm	18	13	6.78	15	57	5.93							07	40	2.85	06	14	2.32
600mm				17	40	4.56							09	47	2.52			
650mm																		
700mm																		
750mm																		
800mm																		
Duration of Test	31:00		26:42		21:13		17:17		14:43		11:53							
Final Travel (mm)	570		600		400		410		600		590							
C.F.E. (kW/m ²)	6.20		5.10		18.10		17.00		5.10		5.50							

OBSERVATIONS

In the case of Specimens No. 1 and 2 there was >100 flaming droplets observed throughout the duration of the tests.

TESTED BY: L. Gatley

*Indicative tests are normally performed in the same way as formal tests but on a reduced number of specimens. They are conducted only for the purposes of the sponsor of the test, mainly for research and development purposes. The full conditions of the Standard will not be complied with in terms of number of specimens tested, specimen construction and/or conditioning requirements. Indicative test results should not be accepted as a substitute for formal test results obtained in accordance with the requirements of the standard.

Annex A: Waterproofing application rates

Specimen No.	Original weight (g)	Weight after application (g)	Applied amount (g)	Application rate (m²)
1.	246	319	73	589
3.	373	403	30	242
5.	154	180	26	210