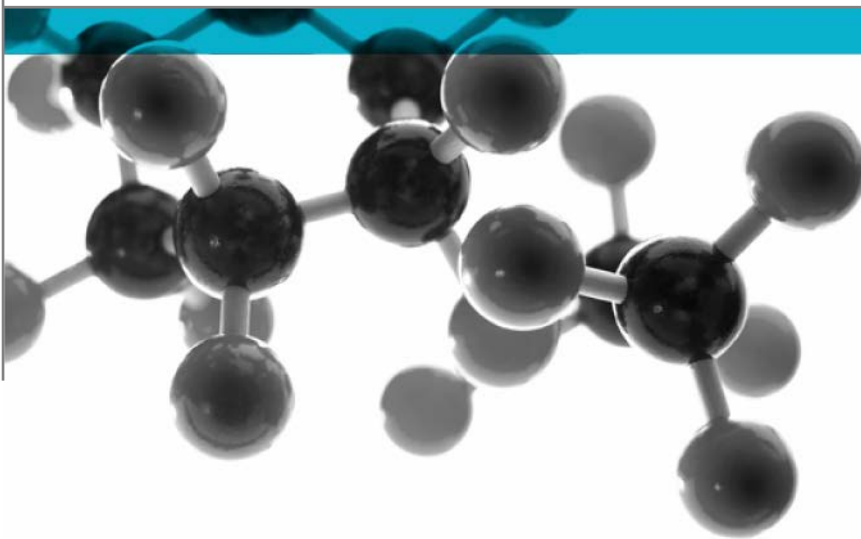


EN 45545-2: 2013 + A1:2015



Summary Test Report – Requirement Table 5 (R1)

Test Method References “T02” (ISO 5658-2:2006+A1:2011. Spread of Flame - Lateral Spread of flame test on Building and Transport Products in Vertical Configuration), “T03.01” (ISO 5660-1: Part 1; Heat Release Rate (Cone Calorimeter Method), “T10.01” / “T10.02” (ISO 5659-2: 2012; Plastics – Smoke Generation. Part 2 Determination of Optical Density by a Single Chamber Method) and “T11.01” (Gas Analysis in the Smoke Box EN ISO 5659-2, using FTIR Technique)

A Report To: Revolutionary Protective Solutions Limited

Document Reference: 362579, 362580 & 362581

Date: 16th March 2016

Issue No.: 1

Page 1

Testing
Advising
Assuring

Executive Summary

Objective

To assess the results of tests performed in accordance with methods T02, T03.01, T10.01 / T10.02 and T11.01 as defined in EN 45545-2: 2013 + A1:2015 at an irradiance level of 50kW/m² with a pilot flame, on specimens of a product and to provide an opinion of compliance with the requirements for wall composites, as defined in EN 45545-2: 2013 + A1:2015.

Generic Description	Product reference	Thickness	Weight per unit area
Anti-graffiti easy maintenance clear coating applied to an aluminium substrate	"RPS MK4 Clear Coat"	2.14mm*	5.41kg/m ² *
Individual components used to manufacture composite:			
Final coating product	"RPS MK4 Clear Coat"	10 microns	Unable to provide
Second coating product	"3MScotchkote WB Urethane DICOL 170"	2 x 25 microns	Unable to provide
First coating product	"3M Scotchkote Epoxy Primer MC 135"	15 to 20 microns	Unable to provide
Substrate	"Aluminium"	1.5mm	Unable to provide
*determined by Exova Warringtonfire			
Please see page 5 of this test report for the full description of the product tested			


Test Sponsor


Revolutionary Protective Solutions Limited, 73 Lucas Road, Snodland, Kent, ME6 5PZ

Opinion

We consider the results of the tests detailed above demonstrate that the product, as tested, complies with the wall composite requirements, R1 (detailed in Table 5 of EN 45545-2: 2013 + A1:2015) for a HL1, HL2 and HL3 Hazard Level Classification.

Signatories


Responsible Officer T. Mort * Senior Technical Officer


Authorised S. Deeming * Business Unit Head

* For and on behalf of **Exova Warringtonfire**.

Report Issued: 16th March 2016

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Author:	T. Mort	Issue Date:	16 th March 2016
Client:	Revolutionary Protective Systems Limited	Issue No.:	1

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Description of Test Specimens

The description of the specimens given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given. The specimens were supplied by the sponsor of the test. **Exova Warringtonfire** was not involved in any selection or sampling procedure.

General description		Anti-graffiti easy maintenance clear coating applied to an aluminium substrate
Product reference of coating system		"RPS MK4 Clear Coat"
Overall coating system thickness		87.5 ± 5 microns
Overall thickness		2.14mm (determined by Exova Warringtonfire)
Overall weight per unit area		5.41kg/m ² (determined by Exova Warringtonfire)
Final coating product (Test face)	Generic type	Anti-graffiti easy maintenance clear coating
	Product reference	"RPS MK4 Clear Coat"
	Name of manufacturer	Revolutionary Protective Solutions Ltd
	Colour	"Clear"
	Number of coats	1
	Application thickness	10 microns
	Application method	Roll and Tip
	Specific gravity	See Note 1 below
	Flame retardant details	See Note 2 below
Curing process		48hours at 20°C
Second coating product	Generic type	2 component water based urethane paint
	Product reference	"3M Scotchkote WB Urethane DICOL 170"
	Name of manufacturer	3M
	Colour	"White"
	Number of coats	2
	Application thickness per coat	25 microns dry cure
	Application method	Spray
	Specific gravity	See Note 1 below
	Flame retardant details	See Note 1 below
Curing process per coat		Air cure 16 hours at 20°C
First coating product	Generic type	Epoxy primer
	Product reference	"3M Scotchkote Epoxy Primer MC 135"
	Name of manufacturer	3M
	Colour	"Light Grey"
	Number of coats	1
	Application thickness	Between 15 to 20 microns
	Application method	Spray
	Specific gravity	See Note 1 below
	Flame retardant details	See Note 1 below
Curing process		16 hours at 20°C

Substrate	Product reference	"Aluminium"
	Generic type	Aluminium
	Name of manufacturer	See Note 1 below
	Thickness	1.5mm
	Weight per unit area	See Note 1 below
	Flame retardant details	The substrate is inherently flame retardant
	Preparation details	Sanded with orbital sander using P120 sandpaper
Brief description of manufacturing process of coatings		See Note 1 below

Note 1. The sponsor was unable to provide this information.

Note 2. The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

Classification

Opinion

We consider the results of the tests detailed above demonstrate that the product, as tested, complies with the wall composite requirements, R1 (detailed in Table 5 of EN 45545-2: 2013 + A1:2015) for a HL1, HL2 and HL3 Hazard Level Classification.

Validity of opinion

This opinion is based on the requirements of EN 45545-2: 2013 + A1:2015 at the date of this report. If EN 45545-2 is revised or amended in any way subsequent to that date, care must be taken to ensure that this opinion is not invalidated by those revisions or amendments.

The opinion has been formulated on the assumption that the specimens are representative of the product in practice. **Exova Warringtonfire** was not involved in any sampling or selection procedures which would confirm this or in any audit testing which would provide confidence in the consistency of the product in the tests.

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Revision History

Issue No :	Re - Issue Date:
Revised By:	Approved By:
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