

CERTIFICATE OF FIRE RATING

Helmsman Storage Solutions Ltd

Issuing laboratory: Warringtonfire Testing and Certification Limited

Clarification standard: EN 13501-1: 2018
Fire Classification: A1
Sponsor(s): Helmsman Storage Solutions Ltd
Products(s): Lockers
Report Number: 543317

Version: 1
Sponsor Address: 1 Norther Way, Bury St Edmunds, Suffolk, IP32 6NH, United Kingdom

This certifies that Helmsman Storage Solutions Ltd has been assessed and certified as meeting the requirements of the standard(s): **EN 13823: 2020 + A1: 2022, EN ISO 1716: 2018 (*), EN 13823: 2020 + A1: 2022, CEN/TS 15117: 2005 EN 15725:2023.**

(*) Results obtained with the 2018 version can also be regarded as valid for classification purposes (where only the 2010 version is mentioned) because the test procedure for EN ISO 1716 remained the same for versions 2010 & 2018, and no significant technical changes were observed in the most recent version 2018.

Signed for and on behalf of Warringtonfire Testing and Certification Limited

Initial issue

Prepared by
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Date Issued: 25/07/2024

1. Classification and field of application

1.1 Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018.

1.2 Classification

The product "Lockers" in relation to its reaction to fire behavior is classified as:

A1

The format of the reaction to fire classification for construction applications excluding floorings and linear pipe thermal insulation products is:

Fire behaviour
A1

Alternatively shown:

Reaction to fire classification: A1

Table 1 Product Description

Item	Detail
General description	Epoxy polyester powder coated steel
Product reference	“Lockers”
Name of manufacturer	Helmsman Storage Solutions Ltd
Overall thickness	0.7mm – 1.3mm (determined by Warringtonfire)
Overall weight per unit area	3.93 - 7.07 kg/m ² (stated by sponsor) 3.74 - 7.69 kg/m ² (determined by Warringtonfire)
Product configuration	<input type="checkbox"/> Coating <input type="checkbox"/> Steel <input type="checkbox"/> Coating

Item	Detail	
Coating (Test face and Reverse face)	Generic type	Epoxy polyester powder coating
	Product reference (as tested)	<input type="checkbox"/> “617-1R903C-2107” <input type="checkbox"/> “727-1R905C-3014” <input type="checkbox"/> “FG139E”
	Name of manufacturer	HMG Powder Coatings Ltd (RAL 9003 & 9005) Akzonobel (RAL 3031)
	Colour reference (as tested)	<input type="checkbox"/> “RAL 9003” <input type="checkbox"/> “RAL 9005” <input type="checkbox"/> “RAL 3031”
	Colour (as tested)	<input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Red
	Number of coats	One
	Application thickness per coat	40 – 60 microns
	Application rate per coat	0.0834 kg/m ²
	Specific gravity	See Note 1 below
	Application method	Automatic spray line
	Curing process	Stoving oven 8 – 10 minutes at 180 °C
	Flame retardant details	See Note 2 below
Steel	Generic type	Cold reduced steel
	Product reference	“Steel”
	Name of manufacturer	Tata steel
	Thickness	0.5mm – 0.9mm
	Weight per unit area	3.93 – 7.07 kg/m ²
	Density	7850 kg/m ³
	Flame retardant details	This component is inherently flame retardant
Mounting and fixing	An 80mm ventilated cavity was situated between the reverse face of the specimens and the calcium silicate backing board (as defined in EN 13238: 2010)	
Brief description of manufacturing process	See Note 3 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.

Note 3: The sponsor was unwilling to provide this information.

Test results

Official test results used for the classification

Table 2 details the test results that have been used in support of classification.

Table 2 Test data

Test method Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
EN 13823: 2020 + A1: 2022 543099 (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)	3	0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.2	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		2	-
	TSP600s (m ²)		24	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
EN ISO 1716: 2018 538732	Average gross heat of combustion for (NON) SUBSTANTIAL component (Black coating), QPCS (MJ/m ²)	1 x 3	1.4	-
EN ISO 1716: 2018 -	Average gross heat of combustion for SUBSTANTIAL component (Steel), QPCS (MJ/kg)	-	0.0	-
EN ISO 1716: 2018 538732	Average gross heat of combustion for (NON) SUBSTANTIAL component (Black coating), QPCS (MJ/m ²)	1 x 3	1.4	-
	Average gross heat of combustion of product as a whole, QPCS (MJ/kg)	-	0.7	-

EN ISO 1716: 2018
Composite
Summary
Calculation

Note: ‘-’ symbol confirms this parameter is not applicable.

Note: A1 classification requires EN ISO 1182 testing to be conducted on substantial components of non-homogenous products. In this instance the steel component is the only substantial component that would require this testing. As a result of the difficulties in performing the test on this type of material, and as it is covered by Commission Decision 96/603/EC as meeting the requirements of an A1 material without the need for testing, the steel has not been tested but is deemed to be compliant with the EN ISO 1182 requirements.

Comparative test results used for the worst case determinations

The tables below detail the test data that has been used to determine the worst case for each product parameter.

Table 3 EN 13823

Product name Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
Project specification; White coating on 0.5mm Steel; 538751 (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)	1	0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.5	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		0	-
	TSP600s (m ²)		18	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
Project specification; Black coating on 0.5mm Steel; 538752 (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)	1	0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.2	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		12	-
	TSP600s (m ²)		23	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant

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Product name Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
Project specification; Red coating on 0.5mm Steel; 540051 (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)	1	0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.3	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²) TSP600s		0	-
	(m ²)		13	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
Project specification; Black coating on 0.9mm Steel; 543099* (Issue 2)	FIGRA (THR(t) threshold of 0.2MJ)	1	0	-
	FIGRA (THR(t) threshold of 0.4MJ)		0	-
	THR600s (MJ)		0.4	-
	LFS < edge of specimen		-	Compliant
	SMOGRA (m ² /s ²)		7	-
	TSP600s (m ²)		31	-
	No flaming droplets/particles persisting shorter than 10 s in EN 13823 within 600s		-	Compliant
	No flaming droplets/particles persisting longer than 10 s in EN 13823 within 600s		-	Compliant
(*) The results of this sample were re-used in the official test report No. 543099 (Issue 2) (as test specimen 1).				

Note: '-' symbol confirms this parameter is not applicable.

Table 4 EN ISO 1716

Product name Report number	Parameter	Number of tests	Results	
			Continuous parameters	Compliance with parameters
Project specification; Black coating; 538732	Gross heat of combustion, QPCS (MJ/kg)	3	16.6	-
	Gross heat of combustion per unit area at 0.0834 kg/m ² for the non-substantial component, QPCS (MJ/m ²)		1.4	-
Project specification; Red coating; 538733	Gross heat of combustion, QPCS (MJ/kg)	3	15.2	-
	Gross heat of combustion per unit area at 0.0834 kg/m ² for the non-substantial component, QPCS (MJ/m ²)		1.3	-
Project specification; White coating; 538734	Gross heat of combustion, QPCS (MJ/kg)	3	13.7	-
	Gross heat of combustion per unit area at 0.0834 kg/m ² for the non-substantial component, QPCS (MJ/m ²)		1.1	-

Note: ‘-’ symbol confirms this parameter is not applicable.