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Reaction to fire classification report

Introduction

This classification report defines the classification assigned to the products "MATT POLYESTER" and "KARAT" in accordance with the procedure given in EN 13501-1:2007+A1:2009.

2 Details of classified product

2.1 General

The products "MATT POLYESTER" and "KARAT" are defined as a self-supporting metal sheet for roofing, external cladding and internal lining.

According to the owner of this classification report, this product complies with the European product specifications EN 14782 and EN 14783.

2.2 Product description

Products called "MATT POLYESTER" and "KARAT", consisting of a steel sheet, nominal thickness 0.50 – 0.75 mm with a laquer on it. "MATT POLYESTER" consists of a polyester based primer nominal area weight 6 g/m^2 and a polyester based top paint nominal area weight 30 g/m^2. "KARAT" consists of a polyester based primer nominal area weight 24 g/m^2 and a polyester based top paint nominal area weight 30 g/m^2. Both products have an epoxy based paint on the backside, nominal area weight 6 – 10 g/m^2.

3 Test reports & test results in support of classification

3.1 Test reports

This classification is based on the test reports listed below:

Name of laboratory	Name of sponsor	Test report ref no	Accredited test method
SP	Areco Sweden AB	5P03285	EN 13823
SP	Areco Sweden AB	5P03285-01	EN ISO 1716

3.2 Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN 13823		6		
	$FIGRA_{0,2MJ}$ (W/s)		0	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		0	Compliant
	LFS < edge		(-)	Compliant
	THR_{600s}, (MJ)		0.3	Compliant
	SMOGRA, (m^2/s^2)		0	Compliant
	TSP_{600s}, (m^2)		29	Compliant
	Flaming droplets/particles		(-)	No flaming droplets/particles
EN ISO 1716		6		
	PCS (MJ/m^2) (2)		0.92	Compliant
	PCS (MJ/m^2) (2)		1.32	Compliant
	PCS (MJ/m^2) (2)		0.3	Compliant
	PCS (MJ/kg) (4)		0.4	Compliant
	PCS (MJ/kg) (4)		0.3	Compliant

(-) : not applicable

(2): for non-homogeneous products the parameter for each external non-substantial component is given

(4): the parameter for the product as a whole

4 Classification and field of application

4.1 Reference and direct field of application

This classification has been carried out in accordance with clause 11 and 15 of EN 13501-1:2007+A1:2009.

4.2 Classification

The products called "MATT POLYESTER" and "KARAT" in relation to its reaction to fire behaviour is classified:

A1

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

Fire Behaviour		Smoke Production			Flaming Droplets	
A1	-	-	-	-	-	-

Reaction to fire classification: *A1*

4.3 Field of application:

This classification is valid for the following product parameters:

All grades of steel.
Nominal thickness of steel sheet: ≥ 0.5mm.

Coating:

All colours.
KARAT front side polyester coating nominal area weight 30 g/m^2 and primer nominal area weight 24 g/m^2 and combined PCS ≤ 1.32 MJ/m^2.
KARAT backside epoxy with nominal area weight 6 – 10 g/m^2 and PCS ≤ 0.3 MJ/m^2.

MATT POLYESTER front side polyester coating nominal area weight 30 g/m^2 and primer nominal area weight 6 g/m^2 and combined PCS ≤ 0.92 MJ/m^2.
MATT POLYESTER backside epoxy with nominal area weight 6 – 10 g/m^2 and PCS ≤ 0.3 MJ/m^2.

Mounting:

All mounting types.

The sample was delivered by the client. SP Fire Research was not involved in the sampling procedure.

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