classification report

Bodycote

Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1: 2007

Notified Body No:

0833

Product Name:

Glass Reinforced Concrete, GRC

Report No:

170272

Issue No:

1

Prepared for:

The Concrete Society Ltd
Riverside House
4 Merseyside Business Park
Blackwater
GU17 9AB

Date:

23rd January 2008

warringtonfire
global safety
TESTING

1. Introduction

This classification report defines the classification assigned to 'GRC', a glassfibre reinforced concrete comprising a product comprising silica sand, cement, water, superplasticiser and continuous filament alkali resistant glass fibre, in line with the procedures given in EN 13501-1:2007

2. Details of classified product

2.1 General

The product, 'GRC', a glassfibre reinforced concrete comprising a product comprising silica sand, cement, water, superplasticiser and continuous filament alkali resistant glass fibre, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, 'GRC', a glassfibre reinforced concrete comprising a product comprising silica sand, cement, water, superplasticiser and continuous filament alkali resistant glass fibre, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description	Glassfibre reinforced concrete
Product reference	"GRC"
Composition details	Glass fibre reinforced concrete product comprising silica sand, cement, water, superplasticiser and continuous filament alkali resistant glass fibre. **The sponsor has provided more specific details relating to the composition of the product but at the request of the sponsor, these details have been omitted from the report and are held on the confidential file relating to this investigation.**
Name of manufacturer	A member of the GRCA Approved Manufacturers Scheme on behalf of the International Glassfibre Reinforced Concrete Association, which is a Special Sector Group of The Concrete Society. **The sponsor has provided specific details of the manufacturer of product but at the request of the sponsor, these details have been omitted from the report and are held on the confidential file relating to this investigation.**
Density	2000 kg/m³ (stated by sponsor) 2092 kg/m³ (determined by **Bodycote warringtonfire**)
Colour reference	Yellow (as determined by **Bodycote warringtonfire**)
Flame retardant details	**The sponsor has confirmed that no flame retardant additives were utilised in the production of the product / component.**

Brief description of manufacturing process	The water, sand and cement and plasticizer are blended together in mixer. The alkali resistant glass fibre is then added to the mixture either by blending in a mixer or by introducing the fibre into a spray of the wet slurry. After the GRC has set it is demoulded and cured for a minimum of 7 days.

3. Test reports/extended application reports & test results in support of classification

3.1 Test reports/extended application reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Bodycote warringtonfire	The Concrete Society Ltd	WF 165013	EN ISO 1182
Bodycote warringtonfire	The Concrete Society Ltd	WF 165015	EN ISO 1716

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter	Compliance parameters
EN ISO 1182	Max Temp. Rise	5	2.76	Compliant
	Duration of Flaming		NIL	Compliant
	Mass Loss (%)		8.52	Compliant
EN ISO 1716	PCS ≤ 2.0 MJ/kg (1) PCS ≤ 2.0 MJ/ kg (2) PCS ≤ 1.4 MJ/m² (3) PCS ≤ 2.0 MJ/kg (4)			
	Total (4)	3	0.0468 MJ/kg	Y

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2007

4.2 Classification

The product, 'GRC', a glassfibre reinforced concrete comprising a product comprising silica sand, cement, water, superplasticiser and continuous filament alkali resistant glass fibre in relation to its reaction to fire behaviour is classified:

A1

The format of the reaction to fire classification for construction products excluding floorings is:

Reaction to fire classification: A1

4.3 Field of application

This classification is valid for the following end use applications:

i) Construction Applications used over any substrate

This classification is also valid for the following product parameters:

Product thickness	Any
Product density	Not less than 2000 kg/m^3
Product colour/pattern	Any
Product composition	No variation allowed
Product construction	No variation allowed

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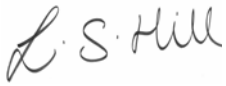

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Leigh Hill
Technical Consultant
Technical Department

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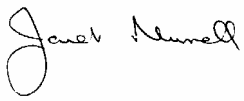

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Janet Murrell
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on behalf of:
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