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Testing. Advising. Assuring.

**Title:**

CLASSIFICATION OF  
REACTION TO FIRE  
PERFORMANCE  
IN ACCORDANCE WITH  
EN 13501-1:2007+A1: 2009.

**Notified Body No:**

0833

**Product Name:**

"Avonite Surfaces  
Foundations"

**Report No:**

311327

**Issue No:**

1

**Prepared for:**

Aristech Acrylics LLC  
7350 Empire Drive  
Florence  
KY 41042  
United States of America.

**Date:**

13<sup>th</sup> September 2011



## 1. Introduction

This classification report defines the classification assigned to “Avonite Surfaces Foundations”, an acrylic solid surface sheet, in line with the procedures given in EN 13501-1:2007+A1: 2009.

## 2. Details of classified product

### 2.1 General

The product, “Avonite Surfaces Foundations”, an acrylic solid surface sheet, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

### 2.2 Product description

The product, “Avonite Surfaces Foundations”, an acrylic solid surface sheet, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description	Acrylic solid surface sheet
Product reference	“Avonite Surfaces Foundations”
Composition details	Mineral filled acrylic sheet
Name of manufacturer	Aristech Acrylics LLC
Thickness	12.7mm (0.50 inch) (stated by sponsor) 12.70mm (determined by <b>Exova Warringtonfire</b> )
Density	1.73g/m <sup>3</sup> (stated by sponsor) 1.76g/m <sup>3</sup> (determined by <b>Exova Warringtonfire</b> )
Colour	“8016 White”
Trade name of flame retardant	“Onyx Elite”
Generic type of flame retardant	Aluminium Trihydrate (ATH)
Amount of flame retardant	60%
Brief description of manufacturing process	The mix of acrylic monomers and ATH is polymerized by continuous casting process.
Mounting and fixing details	The product was backed by a calcium silicate based substrate having a thickness of 12mm and a density of 870kg/m <sup>3</sup>

## 3. Test reports & test results in support of classification

### 3.1 Test reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
<b>Exova warringtonfire</b>	Aristech Acrylics LLC	WF 309956	EN ISO 11925-2
<b>Exova warringtonfire</b>	Aristech Acrylics LLC	WF 309957	EN 13823

### 3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 11925-2 (30s exposure - surface)	F <sub>s</sub>	6	Nil	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (30s exposure - edge)	F <sub>s</sub>	6	Nil	Compliant
	Flaming droplets/ particles		None	Compliant
EN 13823	FIGRA <sub>0.2MJ</sub>	3	48.64	Compliant
	FIGRA <sub>0.4MJ</sub>		48.64	Compliant
	THR <sub>600s</sub>		6.11	Compliant
	LFS		None	Compliant
	SMOGRA		0.70	Compliant
	TSP <sub>600s</sub>		6.92	Compliant

## 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+A1:2009.

### 4.2 Classification

The product, "Avonite Surfaces Foundations", an acrylic solid surface sheet, in relation to its reaction to fire behaviour is classified:

**B**

The additional classification in relation to smoke production is:

**s1**

The additional classification in relation to flaming droplets / particles is:

**d0**

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

Fire Behaviour		Smoke Production				Flaming Droplets	
B	-	s	1	,	d	0	

i.e. B – s1, d0

**Reaction to fire classification: B – s1, d0**

#### 4.3 Field of application

This classification is valid for the following end use applications:

- i) Construction applications used over any substrate with a density equal to or greater than 870kg/m<sup>3</sup>, having a minimum thickness of 12mm and a fire performance of A2, s1, d0 or better (excluding paper faced gypsum plasterboard).

This classification is also valid for the following product parameters:

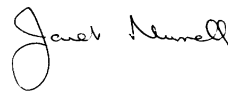
Product thickness	No variation allowed
Product weight per unit area	No variation allowed
Product colour/pattern	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed

**SIGNED**



.....  
**Matthew Dale**  
Certification Engineer

**APPROVED**



.....  
**Janet Murrell**  
Technical Manager  
For and on behalf of:  
**Exova Warringtonfire**

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