

REACTION TO FIRE CLASSIFICATION REPORT

No. RA08-0001A

ACCORDING TO THE EUROPEAN STANDARD

NF EN 13501-1

Notification by the French Government to the European Commission under no 0679.

**Seule la version française fait foi.
The french version is legally acceptable**

Product standard:

NF EN 877:1999/A1:2008: Cast iron pipes and fittings, their joints and accessories for the evacuation of water from buildings – Requirements, test methods and quality assurance

Owner:	SAINT GOBAIN PAM 91 avenue de la Libération 54000 NANCY FRANCE
Commercial brand(s):	Range SMU® S
Manufacturing unit(s):	SAINT GOBAIN PAM 12 rue Nicolas Noël 54460 LIVERDUN FRANCE
Brief description:	Cast iron pipes and fittings (see detailed description in paragraph 2)
Date of issue:	January 03rd, 2008

The indicated classification does not prejudice the conformity of marketed materials with the samples submitted to the tests and under no circumstances, this document should not be considered as type approval or certification of the product in the sense of the L 115-27 article of the consumption's code and of the law dated June 3rd, 1994.

If this report is being issued by e-mail and/or on an electronic medium, only the hard copy of the report signed by CSTB shall prevail in the event of a dispute.

The reproduction of this classification report is only authorised in its integral form.
It comprises 4 pages.

1. Introduction

This classification report defines the classification assigned to the above-mentioned product(s) in accordance with the procedures given in the NF EN 13501-1 standard.

2. Product description

Lamellar and spheroidal graphite cast iron pipes and fittings coated inside and outside with paints, for the evacuation of water from buildings.

The assemblies between the different pipes of the column are made with sleeves, also named couplings. These couplings can include stainless steel straps and elastomer EPDM gaskets.

Nominal thicknesses of the pipes and the fittings: from 3 to 5 mm.

Nominal density of the pipes and the fittings: 7150 kg/m³.

Nominal inside diameters of the pipes: from 40 to 600 mm.

Colours: externally reddish-brown (cast iron pipes and fittings), stainless steel (collars of steel couplings), black (elastomer gaskets).

Nominal characteristics of the coatings:

	SMU® S		
	Pipe		Fitting
	Outside	Inside	Inside/Outside
Nature	Acrylic	Bi-components epoxy	Epoxy
Colour	Reddish-brown	Ochre	Reddish-brown
Thickness	40 µm	130 µm	70 µm

3. Tests reports and tests results in support of this classification

3.1 Tests reports

Name of laboratory	Name of sponsor	Test identification	Test report Nos.	Test method
CSTB	SAINT GOBAIN PAM 91 avenue de la Libération 54000 NANCY FRANCE	ES541070749	RA08-0001A	EN 13823 EN ISO 1716
LNE	HEMPEL 5 rue de l'Europe 60149 MERU FRANCE	-	E120127 CEMATE/1	EN ISO 1716
	VERNIS SOUDEE BP 35 91702 SAINTE GENEVIEVE DES BOIS FRANCE	-	D100423 CEMATE/1	

3.2 Tests results

Test method	Product	Number of tests	Parameters	Results	
				Continuous parameters : mean value	Compliance parameters
EN 13823	SMU® S	3	FIGRA _{0.2MJ} (W/s) FIGRA _{0.4MJ} (W/s) LFS THR _{600s} (MJ)	0.0 0.0 - 0.2	- - Not reached -
			SMOGRA(m ² /s ²) TSP _{600s} (m ²)	0.0 15.4	- -
			Flaming droplets or debris	-	None
EN ISO 1716	External coatings of assembled products	3	PCS (MJ/m ²)	1.5	-
	Internal coatings of assembled products	(per constituent)	PCS (MJ/m ²)	3.6	-

(-) means: not applicable

In compliance with clause 4.1.3 of the NF EN 877/A1 standard, uncoated cast iron pipes and fittings, their joints and accessories are A1 Class according to the amended CEC Decision 96/603/EC.

Considering the products in their end-use conditions, internal coatings are not relevant as they are not exposed to fire. Moreover, at the request of the manufacturer, we have compared these values with the limits of the non substantial coatings.

Gaskets of joints are not relevant either as in the end-use conditions they are not exposed to fire and represent a very low quantity of organic material.

According to the NF EN 13501-1 standard, as the gross calorific potential (PCS) of the products in their assembled state (pipes, fittings, joints, their components and material) due to their densities and weight will always satisfy the requirement on PCS for the product as a whole ($\leq 3,0$ MJ/kg), the reaction to fire classification shall be obtained as follows:

- External coatings, if containing more than 1% by weight or volume of homogeneously distributed organic material, shall satisfy the following requirements for an A2 classification of the assembled products in a discharge system: the PCS of the external coatings shall conform to the requirements of the NF EN 13501-1 standard on external components. In the case of the non-substantial components, the PCS of external coatings shall be less than 4 MJ/m² (method of calculation described in annex G of the NF EN 877/A1 standard).
- The assembled products (including coated pipes, fittings and couplings) shall be tested according to the NF EN 13823 standard, using the mounting adaptations given in Annex H of the NF EN 877/A1 standard and shall satisfy the requirements of classification criteria and additional classifications listed in the NF EN 13501-1 standard for the intended class of reaction to fire.

4. Classification and direct field of application

4.1 Reference of the classification

This classification has been carried out in accordance with clauses 11.7.3, 11.9.2 and 11.10.1 of the NF EN 13501-1 standard and clause 4.1.3 of the NF EN 877:1999/A1:2008 standard.

4.2 Classification

Fire behaviour		Smoke production		Flaming droplets or debris
A2	-	s1	,	d0

Classification: A2 - s1, d0

4.3 Field of application

This classification is valid for the following product parameters:

- See the "Product description", paragraph 2.
- A range of nominal thicknesses of the cast iron pipes and fittings from 3 to 5 mm.
- A nominal density of the cast iron pipes and fittings of 7150 kg/m³.
- Including the internal coating of the pipes.

This classification is valid for the following end use conditions:

- Assembled products in a discharge system.

Champs-sur-Marne, January 03rd, 2008

**The Technician
responsible for the test**

P.O Gildas CREACH



Anne RAYMOND

The Head of Reaction to Fire activity



Martial BONHOMME

.....END OF THE CLASSIFICATION REPORT