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FIRE AND RESCUE DEPARTMENT UNDER THE MINISTRY OF THE INTERIOR OF
THE REPUBLIC OF LITHUANIA**FIRE RESEARCH CENTRE**
REACTION TO FIRE TESTING DIVISION**1. Introduction**

This classification report defines the classification assigned to plastic piping for inside buildings "Wavin Optima" unplasticized polyvinyl chloride (PVC-U) in accordance with procedures given in LST EN 13501-1:2007+A1:2010

**CLASSIFICATION OF REACTION TO FIRE
IN ACCORDANCE WITH LST EN 13501-1:2007+A1:2010**

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Prepared by: Fire Research Centre, Lithuania

Product name: Plastic piping for inside buildings "Wavin Optima"
unplasticized polyvinyl chloride (PVC-U)

Classification report No.: 20-20.2013.24

Issue number: Exemplar No. 2 (*this document is translation of Lithuanian Classification Report No.20-20.2012.24 Exemplar No.1, issued on 17 of December 2013*)

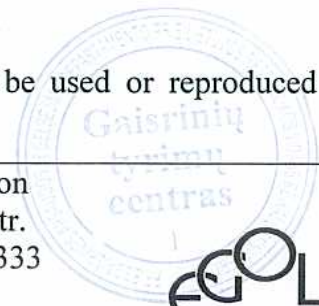
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Member

2. Details of classified product

2.1 General

The product, plastic piping for inside buildings “Wavin Optima” unplasticized polyvinyl chloride (PVC-U), is for waste release inside buildings.

2.2 Product description

“Wavin Optima” pipes with a diameter of 110 mm and 50 mm, thickness of 3,2 mm and 3,0 mm, density 1410 kg/m³. Pipe walls consist of three layers: the external and inside layers - polyvinyl chloride (PVC-U), a layer between them - foamed polyvinyl chloride (PVC-U). Rubber gaskets are inserted for pipe joints, which are made of SBR (styrene-butadiene). Pipes are fixed to the base with metal holders.

3. Reports and results in support of classification

3.1 Reports

Name of Laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
Fire Research Centre Reaction to Fire Testing Division	UAB „Wavin Baltic“	20-20.2013.3	LST EN 13823:2010
Fire Research Centre Reaction to Fire Testing Division	UAB „Wavin Baltic“	20-21.2013.5	LST EN ISO 11925-2:2010

3.2 Results

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
LST EN ISO 11925-2 Surface flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	6	(-)	Compliant
	Ignition of filter paper		No	Compliant
LST EN ISO 11925-2 edge flame attack Flame exposition period 30 s	$F_s \leq 150$ mm within 60 s	6	(-)	Compliant
	Ignition of filter paper		No	Compliant
LST EN 13823	FIGRA _{0,2MJ} ≤ 120 W/s LFS<edge of specimen THR _{600s} ≤ 7,5 MJ	3	35,6 Yes 1,6	Compliant
	SMOGR _A ≤ 180 m ² /s ² TSP _{600s} ≤ 200 m ²		37,4 180,0	Compliant
	Within 600 s there aren't any flaming droplets/particules		Yes	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with LST EN 13501-1:2007+A1:2010 chapter 11.

4.2 Classification

The product, plastic piping for inside buildings “Wavin Optima” unplasticized polyvinyl chloride (PVC-U) in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

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

d0



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

Fire behaviour		Smoke production			Flaming droplets
B	-	s	2	,	d 0

i.e. B-s2,d0.

Reaction to fire classification: B-s2,d0

4.3 Field of application

This classification is valid for the following end use applications and additionally for this product parameter:

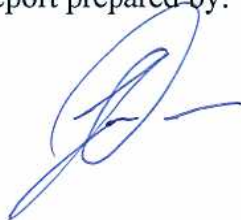
- in chapter 2 described the product to the substrate can be mounted with or without an air gap;
- in chapter 2 describes the product should be mounted to the substrate which reaction to fire classes not lower than A2-s2, d0;
- the distance between the pipe must be greater than 250 mm.

5. Limitations

This classification document does not represent type of approval or certification of the product.

Classification Report prepared by:

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Classification Report approved by:

Chief
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