

**CLASSIFICATION OF REACTION TO FIRE FOR ELECTRIC CABLES IN  
ACCORDANCE WITH EN 13501-6: 2018**

**A.1 Introduction:** This classification report defines the classification assigned to the cable family FAM098\_11 in accordance with procedures given in EN 13501-6:2018 standards.

<b>Sponsor:</b>	ATLAS IT GROUP d.o.o. Slavonska Avenija 52i Zagreb - Croatia
<b>Prepared by:</b>	SGS Belgium N.V. Division SGS CEBEC Boulevard Internationalelaan 55, Building K Belgium
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<b>Product type</b>	S/FTP Cat 7
<b>Product references:</b>	AP-1743-VH-5
<b>Family name:</b>	FAM098_11
<b>Classification report No.:</b>	630309.21_11_Class
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<b>A.2 Details of classified product</b>	
<b>A2.1 General</b>	The product as described below can be defined as a Cables for general applications in construction works subject to reaction to fire according to EN 50575:2014 +A1:2016 standard. <ul style="list-style-type: none"> <li>• Communication cable.</li> </ul>

<b>A2.2 Product description (see additional information on appendix 2)</b>	
<b>SGS Belgium Number</b>	016086
<b>External diameter</b>	~7.5 mm
<b>Number of conductors</b>	8 (4 Pairs)
<b>Cross section</b>	/
<b>Voltage rating</b>	N/A
<b>Sampling</b>	<input checked="" type="checkbox"/> Carried out by SGS Belgium <input type="checkbox"/> Not carried out by SGS Belgium

<b>A.3 Reports and result in support of this classification</b>			
<b>A3.1 Reports</b>			
<b>Name of laboratory</b>	<b>Name of sponsor</b>	<b>Test reports ref.no.</b>	<b>Test method</b>
SGS	ATLAS IT GROUP d.o.o.	AJFS2110009009FF-01	EN 60332-1-2:2004+A1:2015+A11:2016
SGS	ATLAS IT GROUP d.o.o.	AJFS2110009009FF-02	EN 50399:2011+A1:2016
SGS	ATLAS IT GROUP d.o.o.	AJFS2110009009FF-03	EN 60754-2:2014
SGS	ATLAS IT GROUP d.o.o.	AJFS2110009009FF-04	EN 61034-2:2005+A2:2020

A3.2 Results						
Test method	Parameter	No Tests	Results Continuous parameter mean m			Compliance with parameters
EN 60332-1-2	Flame spread H (mm)	1	97			Compliant
EN 50399	FIGRA (W/s)	1	89.5			Compliant
	THR 1200s (MJ)		6.4			
	Peak HRR (kW)		12.9			
	Flame Spread (m)		0.27			
	Peak SRP (m <sup>2</sup> /s)		0.03			
	TSP1200s (m <sup>2</sup> )		5.3			
	Flaming droplets (s) 0 <10 or >10		x			Compliant d0
EN 60754-2	C (µS/mm)	3x3	Weighted	0.3		Compliant
	pH	3x3	Weighted	6.1		Compliant
EN 61034-2	Transmittance	1	93.7			Compliant

Remark: for EN 50399 the results given in this table include the « safety margin » if applicable



<b>A.4 Classification and field of application</b>
<b>A4.1 Reference of classification</b>
This classification has been carried out in accordance with EN 13501-6: 2018
<b>A4.2 Classification</b>
The product Family FAM098_06 in relation to its reaction to fire behaviour is classified: B2ca
The additional classification in relation to smoke production is: s1a
The additional classification in relation to flaming droplets / particles is: d0
The additional classification in relation to acidity is: a1

The format of the reaction to fire classification for electric cables as requested by the sponsor is

Fire behaviour		Smoke production		Flaming droplets		Acidity
<b>B2ca</b>	.	<b>s1a</b>	.	<b>d0</b>	.	<b>a1</b>

On request of the sponsor, the cable will be classified:

Fire behaviour		Smoke production		Flaming droplets		Acidity
<b>Dca</b>	.	<b>s2</b>	.	<b>d2</b>	.	<b>a1</b>

<b>A4.3 Field of application</b>		
This classification is valid for the following product parameters as determined in the extended application process according to CLS/TS 50576:		
	$\chi$ Min	$\chi$ Max
Covered range of the Cable parameter Value of $\chi$ :	N/A	N/A
The classification is valid for all end use applications		
<b>A.5 Limitation</b>		
This classification document does not represent type approval or certification of the product.		
Signed	Approved	
Rezart Dibra 	Yassine Echchaia 	

**Appendix 1: Classification criteria**
**Parameters measured/calculated/determined according to EN 60332-1-2:**

FS: Flame spread (m)

**Classification criteria according to EN 13501-6:**

<u>FS</u>	$\leq 425$ mm	$>425$ mm
<u>Euroclass</u>	<u>Eca</u>	<u>Fca</u>
	EN 50399 can be performed	EN 50399 test cannot be performed

**Parameters measured/calculated/determined according to EN 50399:**

THR1200: Total heat released after 20 min (MJ)

HRR<sub>peak</sub>: Peak of heat released rate (kW)

FIGRA: Fire growth rate (W/s)

FS: Flame spread (m)

TSP1200: Smoke production after 20 min (m<sup>2</sup>)

SPR<sub>peak</sub>: Peak of smoke production (m<sup>2</sup>/s)

Flaming droplets

**Classification criteria according to EN 13501-6:**

<u>FS</u>	<u>THR</u>	<u>HRR<sub>p</sub></u>	<u>Figra</u>	<u>Euroclass</u>
$\leq 1.5$ m	$\leq 15$ MJ	$\leq 30$ kW	$\leq 150$ W/s	B2ca
$\leq 2$ m	$\leq 30$ MJ	$\leq 60$ kW	$\leq 300$ W/s	Cca
-	$\leq 70$ MJ	$\leq 400$ kW	$\leq 1300$ W/s	Dca
-	$> 70$ MJ	$> 400$ kW	$> 1300$ W/s	Eca

Smoke parameters EN 50399	TSP (m <sup>2</sup> )	SPR (m <sup>2</sup> /s)	Class
	≤50	≤0.25	s1
	≤400	≤1.5	s2
	>400	>1.5	s3

Transmittance according to EN 61034-2	<60%	≥60%	≥80%
Class	s1	s1b	s1a

Droplets	None	≤10 s	>10 s
Class	d0	d1	d2

Acidity	pH	>4.3			≤4.3
	Cond (μS/mm)	<2.5	<10	≥10	
Class		a1	a2	a3	a3

<b>Appendix 2: Cable range details</b>			
<b>Cable type</b>	<b>Cable description</b>	<b>Product ref.</b>	<b>Number of conductors</b>
S/FTP Cat 7A/8	4x[2x(BC+PE) + Al-Foil shield]+Braid shield + LSZH	AP-1743-VH-5	8 (4 Pair)





Notified Body NB 2658

**Appendix 3: Additional information**

**None**