

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 FAM0101_14 in accordance with procedures given in EN 13501-6:2018 standards.

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Product type:	UTP CAT 6
Product references:	AP-1614-VH-305
Family name:	FAM0101_14
Classification report No.:	630309.07_14_Class
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A.2 Details of classified product	
A2.1 General	<p>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.</p> <ul style="list-style-type: none"> • Communication cable.

A2.2 Product description (see additional information on appendix 2)	
SGS Belgium Number	014234
External diameter	~6.0 mm
Number of conductors	8 (4 Pairs)
Voltage rating	N/A
Sampling	<input checked="" type="checkbox"/> Carried out by SGS Belgium <input type="checkbox"/> Not carried out by SGS Belgium

A.3 Reports and result in support of this classification			
A3.1 Reports			
Name of laboratory	Name of sponsor	Test reports ref.no.	Test method
SGS	ATLAS IT GROUP d.o.o.	AJFS1908008108CA-01	EN 60332-1-2:2004+A1:2015+A11:2016
SGS	ATLAS IT GROUP d.o.o.	AJFS1908008108CA -02	EN 50399:2011+A1:2016
SGS	ATLAS IT GROUP d.o.o.	AJFS1908008108CA -03	EN 60754-2:2014
SGS	ATLAS IT GROUP d.o.o.	AJFS1908008108CA -04	EN 61034-2:2005+A2:2020

A3.2 Results						
Test method	Parameter	No Tests	Results Continuous parameters mean m			Compliance with parameters
EN 60332-1-2	Flame spread H (mm)	1	113			Compliant
EN 50399	FIGRA (W/s)	1	90.4			Compliant
	THR 1200s (MJ)		5.9			
	Peak HRR (kW)		24.6			
	Flame Spread (m)		1.21			
	Peak SRP (m ² /s)		0.09			
	TSP1200s (m ²)		29.8			
	Flaming droplets (s) 0 <10 or >10		x			Compliant d0
EN 60754-2	C (μS/mm)	3x3	Weighted	2.3		Compliant
	pH	3x3	Weighted	4.5		Compliant
EN 61034-2	Transmittance	1	81.6			Compliant

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

A.4 Classification and field of application

A4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-6: 2018

A4.2 Classification

The product Family FAM0101_12 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
B2ca	.	s1a	.	d0	.	a1

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

Fire behaviour		Smoke production		Flaming droplets		Acidity
Dca	.	s2	.	d2	.	a1



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A4.3 Field of application

This classification is valid for the following product parameters as determined in the extended application process according to CLS/TS 50576:

	χ Min	χ Max
Covered range of the Cable parameter Value of χ :	N/A	N/A
The classification is valid for all end use applications		

A.5 Limitation

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

Signed	Approved
<p>Rezart Dibra</p> 	<p>Yassine Echchaia</p> 

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>	$\leq 425 \text{ mm}$	$>425 \text{ mm}$
<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_{peak}: Peak of heat released rate (kW)

FIGRA: Fire growth rate (W/s)

FS: Flame spread (m)

TSP1200: Smoke production after 20 min (m²)

SPR_{peak}: Peak of smoke production (m²/s)

Flaming droplets

Classification criteria according to EN 13501-6:

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

Smoke parameters EN 50399	TSP (m ²)	SPR (m ² /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



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Appendix 2: Cable range details			
Cable type	Cables description	Product ref.	Number of conductors
UTP CAT 6	4x2x(BC+PE) + Cross + Rip cord + LSZH	AP-1614-VH-305	8 (4 pair)



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Appendix 3: Additional information

None