

## **FUNCTION IN FIRE EXPERT JUDGEMENT REPORT WITH CLASSIFICATION FIRES-JR-108-25-NURE**

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**ARDIC ELEKTRIK Cable Management System with power and communication cables of company  
PRAKAB PRAŽSKÁ KABELOVNA s.r.o.**

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# FUNCTION IN FIRE EXPERT JUDGEMENT REPORT WITH CLASSIFICATION IN ACCORDANCE WITH DIN 4102-12: 1998-11

**FIRES-JR-108-25-NURE**

**Name of the product:** ARDIC ELEKTRIK Cable Management System with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o.

**Sponsor:** ARDIC ELEKTRIK SAN VE TIC LTD STI.  
BEULIDUZU OSB MH., HURRIYET BLV.  
ASF PLAZA, NO.10/11, KAT 4, BEYLIKDUZU-ISTANBUL  
TURKEY

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**Task No.:** PR-25-0177

**Date of issue:** 06. 08. 2025

Reports: 2  
Copy No.: 2

**Distribution list:**

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BLV., ASF PLAZA, NO.10/11, KAT 4, BEYLIKDUZU-ISTANBUL-TURKEY

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This expert judgement report with classification defines the function in fire classification assigned to product “Cable bearing system LINEAR 1 with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o.” in accordance with the classes given in DIN 4102 – 12: 1998-11.

This expert judgement report defines field of application which is outside the field of application according test standard. This expert judgement expresses the opinion of the FIRES and is based on the experience or internal rules of FIRES.

This product has already been classified by FIRES, s.r.o. and number of previous classification of function in fire is FIRES-JR-104-16-NURE issued on 26. 08. 2016. Document FIRES-JR-108-25-NURE replaces classification of function in fire FIRES-JR-104-16-NURE.

## 2. DETAILS OF CLASSIFIED PRODUCT

### 2.1 GENERAL

The product, Cable bearing system LINEAR 1 with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o., is defined as a cable bearing system with power and communication halogen free cables with circuit integrity maintenance in fire.

### 2.2 PRODUCT DESCRIPTION

The product compromise of cable bearing system LINEAR 1 - cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. with circuit integrity maintenance in fire.

#### **Cable trays LINEAR 1**

Cable trays LINEAR 1 are made from steel sheet of class 11343, 1,5 mm thick. Length of trays is 3000 mm. Height of tray side is 50 mm, 60 mm or 100 mm. The sides of cable tray are perforated with dimension  $\text{Ø } 8,5 \times 30 \text{ mm}$  and bottom is perforated with dimension  $\text{Ø } 8,5 \times 20 \text{ mm}$ . The distance between individual holes is 20 mm broadwise and axial distance is 35 mm.

Product range of tray LINEAR 1 is (tray width / height of tray side).

Height of tray side 50 mm: L1 50/50-P, L1 100/50-P, L1 120/50-P, L1 160/50-P, L1 200/50-P, L1 260/50-P, L1 300/50-P, L1 400 / 50-P, L1 500/50-P.

Height of tray side 60 mm: L1 80/60-P, L1 100/60-P, L1 120/60-P, L1 160/60-P, L1 200/60-P, L1 260/60-P, L1 300/60-P.

Height of tray side 100 mm: L1 100/100-P, L1 120/100-P, L1 160/100-P, L1 200/100-P, L1 260/100-P, L1 300/100-P, L1 400/100-P, L1 500/100-P.

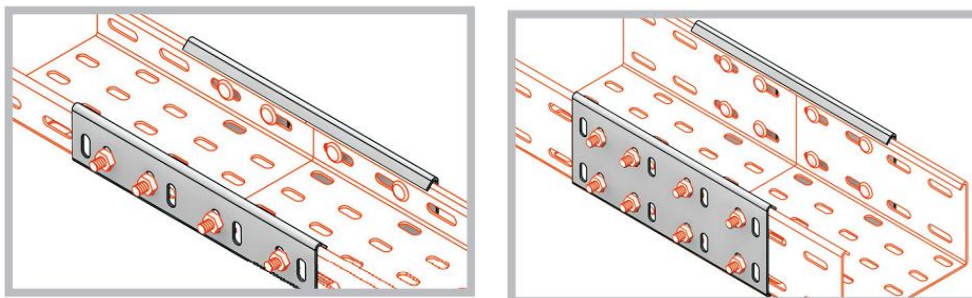
Tested trays were L1 300/60-P, L1 500/50-P, L1 500/100-P, L1 160/50-P, L1 200/50-P.



#### **Junction of trays L1 – SL 3**

Junction is used for joining of sheet trays LINEAR 1 from outside. It is made from steel sheet of class 11343, 1,5 mm thick. The sheet of junction is perforated with dimension of holes  $8,5 \times 20 \text{ mm}$ . Length of junction is 250 mm. Carriage screws M8 x 15 with collar nuts are used for joining.

Product range: height of tray side 50 mm SL 3/50, height of tray side 60 mm – SL 3/60, height of tray side 100 mm – SL 3/100.



**Junction of trays L1 – SL4**

Junction is used for joining of sheet trays LINEAR 1 (height of tray side is 50 mm, 60 mm and 100 mm) from bottom outside. It is made from steel sheet of class 11343, 1,5 mm thick. The sheet of junction is perforated with dimension of holes 8,5 x 20 mm. Length of junction is 250 mm. Carriage screws M8 x 15 with collar nuts are used for joining.

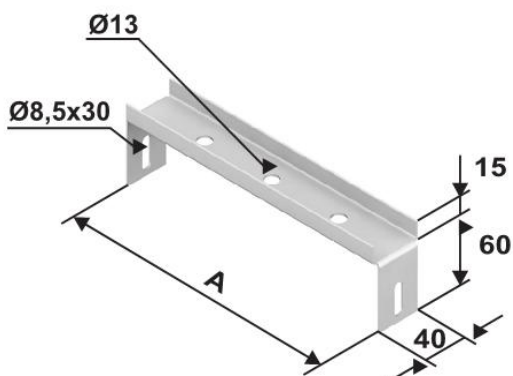
Product range: SL 4/50.

**Centre holder of tray - DSL**

Holder is used for attachment of tray LINEAR 1 to the ceiling construction by means of center threaded rods. Holder is made of steel sheet of class 11343, 1,5 mm thick. Attachment is made by carriage screws M8 x 15 with collar nut at tray side and by nuts M8 with washers under and over the holder directly to threaded rod.

Product range: height of tray side 50 mm - DSL 50, DSL 70, DSL 100, DSL 120, DSL 160.

Holders DSL 160 at threaded rods ZT 8 fixed to ceiling were tested.

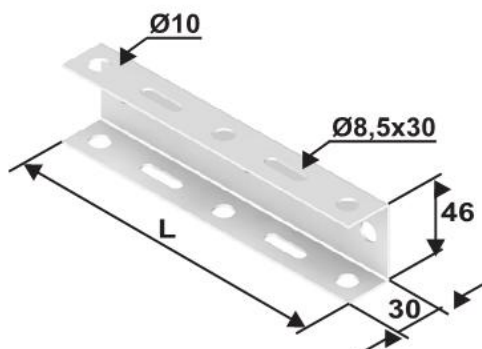


**Support - PL**

Support – PL is used for attachment of trays LINEAR 1 to the ceiling construction by means of threaded rods ZT8. Support – PL is made from steel sheet of class 11343, 2 mm thick (1,5 mm) Attachment is made by nuts M8 with washers under and over support directly to threaded rods ZT8.

Product range: PL200, PL 300, PL 400, PL 500.

Supports PL 500 at threaded rods ZT8 fixed to ceiling were tested.

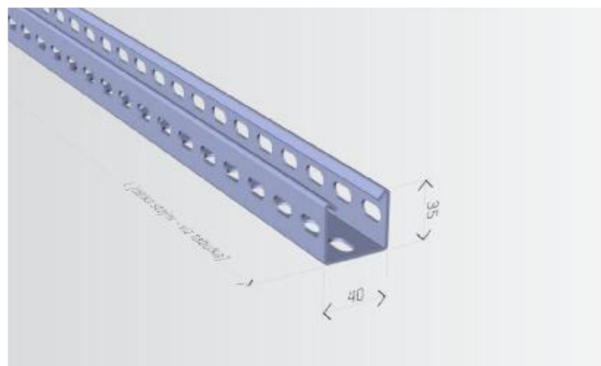






**Vertical profile STPM**

Vertical profile (upright) STPM (length 200 – 3000 mm) is made from steel sheet of class 11 343, 2 mm thick, 40 mm wide and 35 mm high. It is used for creation of various multi-sides ceiling constructions in space. Supports NL and NZM are attaching to this profile. Holders DZM STP are used for fixation of profiles to ceiling. Profiles with length 1200 mm were tested.



**Cables**

Power and communication free halogen cables are specified for stationary distribution of electrical energy in dry and damp premises. Since they are free from halogens and exhibit enhanced fire performance, these cables are used in those applications where in the event of fire, the negative effect on concentrations of people and valuable material goods must be minimized. Suitable for hotels, hospitals, underground railways, airport etc. to protect people and technical building equipment in the event of fire where there is requirement for maintaining the functional integrity all cable installation in the event of fire. The cables develop in case of fire low heat released rate and smoke and no burning particles drop away during fire accident. Functional integrity all cable installation in the event of fire is guaranteed only with use specified supporting member and cables grips.

**Used cables by test:**

PRAKAB PRAŽSKÁ KABELOVNA, s.r.o.

- type PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R... (22x – acc. TP PRAKAB 04/08)
- type PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R... (2x – acc. TP PRAKAB 04/08)
- type PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R... (18x – acc. TP PRAKAB 04/08)
- type PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R... (20x – acc. TP PRAKAB 05/01 – 5<sup>th</sup> issue)

Length of tested cables was 4,5 m and 3,1 m from that was exposed to fire.

More detailed information about product construction is shown in drawings which form an integral part of test report [1]. Drawings were delivered by test sponsors.

**3. TEST REPORTS AND EXTENDED APPLICATION REPORTS IN SUPPORT OF CLASSIFICATION**

**3.1 TEST REPORTS AND EXTENDED APPLICATION REPORTS**

No.	Name of laboratory	Name of sponsor	Test report No.	Date of the test	Test method
[1]	FIRES, s.r.o., Batizovce, SR	K.B.K. fire, s.r.o., Ostrava – Přívoz, Czech Republic	FIRES-FR-087-11-AUNE	21. 04. 2011	DIN 4102-12



3.2 TEST RESULTS

Test report No. /Test method	Specimen No.	Cables	Track No.	Time to first failure / interruption of conductor
[1] DIN 4102-12	8	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x10 RE FE180/P90-R...	E2	120 minutes no failure / interruption
	9	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x10 RE FE180/P90-R...	E2	120 minutes no failure / interruption
	10	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	E1	120 minutes no failure / interruption
	11	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	E1	120 minutes no failure / interruption
	12	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	13	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	14	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	15	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	16	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	17	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	18	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	19	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	20	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C3	85 minutes
	21	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C3	85 minutes
	22	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C3	120 minutes no failure / interruption
	23	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C3	120 minutes no failure / interruption
	24	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C2	120 minutes no failure / interruption
	25	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C2	120 minutes no failure / interruption
	26	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C2	113 minutes
	27	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C2	120 minutes no failure / interruption
	28	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	29	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	30	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	31	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	34	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	35	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	36	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	37	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	B1	117 minutes
	42	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	43	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	44	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	A1	112 minutes
	45	PRAFlaDur <sup>®</sup> 90 (N)HXH-J 4x50 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	53A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	E1	120 minutes no failure / interruption
	53B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	E1	120 minutes no failure / interruption
	54A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	D2	120 minutes no failure / interruption
	54B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	D2	120 minutes no failure / interruption
	55A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	D1	93 minutes
	55B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	D1	107 minutes
	56A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C3	54 minutes
	56B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C3	105 minutes
	57A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C2	75 minutes
	57B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C2	120 minutes no failure / interruption
	58A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C1	99 minutes
	58B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	C1	119 minutes
	61A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	B1	120 minutes no failure / interruption
61B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	B1	114 minutes	
70A	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	A1	120 minutes no failure / interruption	
70B	PRAFlaGuard <sup>®</sup> F SSKFH-V180 1x2x0,8 P90-R...	A1	120 minutes no failure / interruption	

[1] The fire test was discontinued in 123<sup>rd</sup> minute at the request of test sponsor.

Specimens S1 – S45 were tested by three-phase voltage supply 3 x 230/400V with bulbs 240V / 60 W. Specimens S52 – S70 were tested by one-phase voltage supply 1 x 110V with LED diodes 3V / 0,03W. 3A circuit-breakers with B(gL) performance characteristics were used.



#### 4. CLASSIFICATION AND FIELD OF APPLICATION

##### 4.1 CLASSIFICATION ACCORDING TO DIN 4102-12: 1998-11

The product, cable bearing system LINEAR 1 - cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. is classified according to the following combinations of performance parameters and classes as appropriate.

Used cables by test are classified as follows:

Cable	Type of tested cable, single cross-sections and number of conductors	Arrangement	Classification for type of tested cable (by cross-sections of conductors)	Classification for cable
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 300/60-P. Supports NL 300 with holders DPL1 and threaded rods ZT8. Wall mounting. Loading of trays 10 kg.m <sup>-1</sup> . Spacing of supports 1200 mm. <b>Standard wall track No. A1.</b>	E 90	n x ≥ 1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 90	n x 2 x ≥ 0,8 mm n ≥ 1 <b>E 90</b>
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 300/60-P. Vertical profiles STPM 1200 with holders DZM STP and supports NL 300 and holders DPL1 and threaded rods ZT8. Ceiling mounting. Loading of trays 10 kg.m <sup>-1</sup> . Spacing of supports 1200 mm. <b>Standard track No. B1.</b>	E 90	n x ≥ 1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 90	n x 2 x ≥ 0,8 mm n ≥ 1 <b>E 90</b>
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/100-P. Supports PL 500 P with threaded rods ZT8. Ceiling mounting. Loading of trays 15 kg.m <sup>-1</sup> . Spacing of supports 1200 mm. <b>Non-standard track No. C1.</b>	E 90	n x ≥ 1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 90	n x 2 x ≥ 0,8 mm n ≥ 1 <b>E 90</b>
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/50-P. Supports PL 500 P with threaded rods ZT8. Ceiling mounting. Loading of trays 15 kg.m <sup>-1</sup> . Spacing of supports 1200 mm. <b>Non-standard track No. C2.</b>	E 90	n x ≥ 1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 60	n x 2 x ≥ 0,8 mm n ≥ 1 <b>E 60</b>
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/100-P. Vertical profiles STPM 1200 with holders DZM STP and supports NL 500. Ceiling mounting. Loading of trays 15 kg.m <sup>-1</sup> . Spacing of profiles 1200 mm. <b>Non-standard track No. D1.</b>	E 90	n x ≥ 1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 90	n x 2 x ≥ 0,8 mm n ≥ 1 <b>E 90</b>



Cable	Type of tested cable, single cross-sections and number of conductors	Arrangement	Classification for type of tested cable (by cross-sections of conductors)	Classification for cable
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/50-P. Vertical profiles STPM 1200 with holders DZM STP and supports NL 500. Ceiling mounting. Loading of trays 15 kg.m <sup>-1</sup> . Spacing of profiles 1200 mm. <b>Non-standard track No. D2.</b>	E 90	n x ≥1,5 mm <sup>2</sup> n ≥ 1 <b>E 90</b>
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		E 90	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		E 90	n x 2 x ≥0,8 mm n ≥ 1 <b>E 90</b>
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...		In trays L1 160/50-P. Holders DSL 160 with threaded rods ZT8. Ceiling mounting. Loading of trays 7 kg.m <sup>-1</sup> . Spacing of holders 1200 mm. <b>Non-standard track No. E1.</b>	E 90
	PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R...	E 90		
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	E 90		n x 2 x ≥0,8 mm n ≥ 1 <b>E 90</b>

**Product, cable bearing system LINEAR 1 - cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. is classified to classes according to achieved test results of tested cables at tracks. Other classification is not allowed.**

#### 4.2 FIELD OF APPLICATION

This classification is valid for the following end use applications:

- throughout the period during which circuit integrity is to be maintained, neighboring building components shall not have a negative effect on circuit integrity;
- although testing is only carried out on cables arranged horizontally, test results also apply to cables arranged either diagonally or vertically (e.g. in risers), as long as the cable system is supported in transitional areas (i.e. where it switches from a horizontal to a vertical arrangement) in such a manner that the cables will not slip or kink at corners;
- test results of function in fire test of cables tested at standard supporting construction are also applicable for tested standard supporting construction of other producers;
- test results of function in fire test of cables tested at standard supporting construction are also applicable for cables of other producers tested at standard supporting construction;
- where risers are used, circuit integrity classification only applies if the cable is effectively supported (i.e. with a spacing of supports of 3 500 mm or less and the distance between cable clips is ≤ 300 mm). Figure 5 of standard DIN 4102-12 shows a suitable means of mounting cables on risers. Cables may also be stabilized by a seal at penetrations in floors, provided that the sealant material is of a suitable material class, or using clips of proven suitability. The suitability of any design other than that shown in figure 5 may only be assessed by an accredited test laboratory;
- for vertical systems, the test results obtained for cables mounted singly on the ceiling using single clips apply. Brackets of proven suitability may also be used, as long as their spacing is equal to that of the single clips tested;
- test results of testing single cables on the ceiling apply also to cables mounted horizontally on walls;
- test results of testing bunched cables on a ladder or tray also apply to support construction attached to a wall. However, such constructions required proof of suitability by means of a test certificate or other document issued by an accredited testing laboratory.

#### 4.3 FIELD OF APPLICATION BEYOND THE APPLICATION DEFINED IN STANDARD

- classification for type of cable (by cross-sections of conductors) is valid only for tested cable types and cross-sections of conductors;



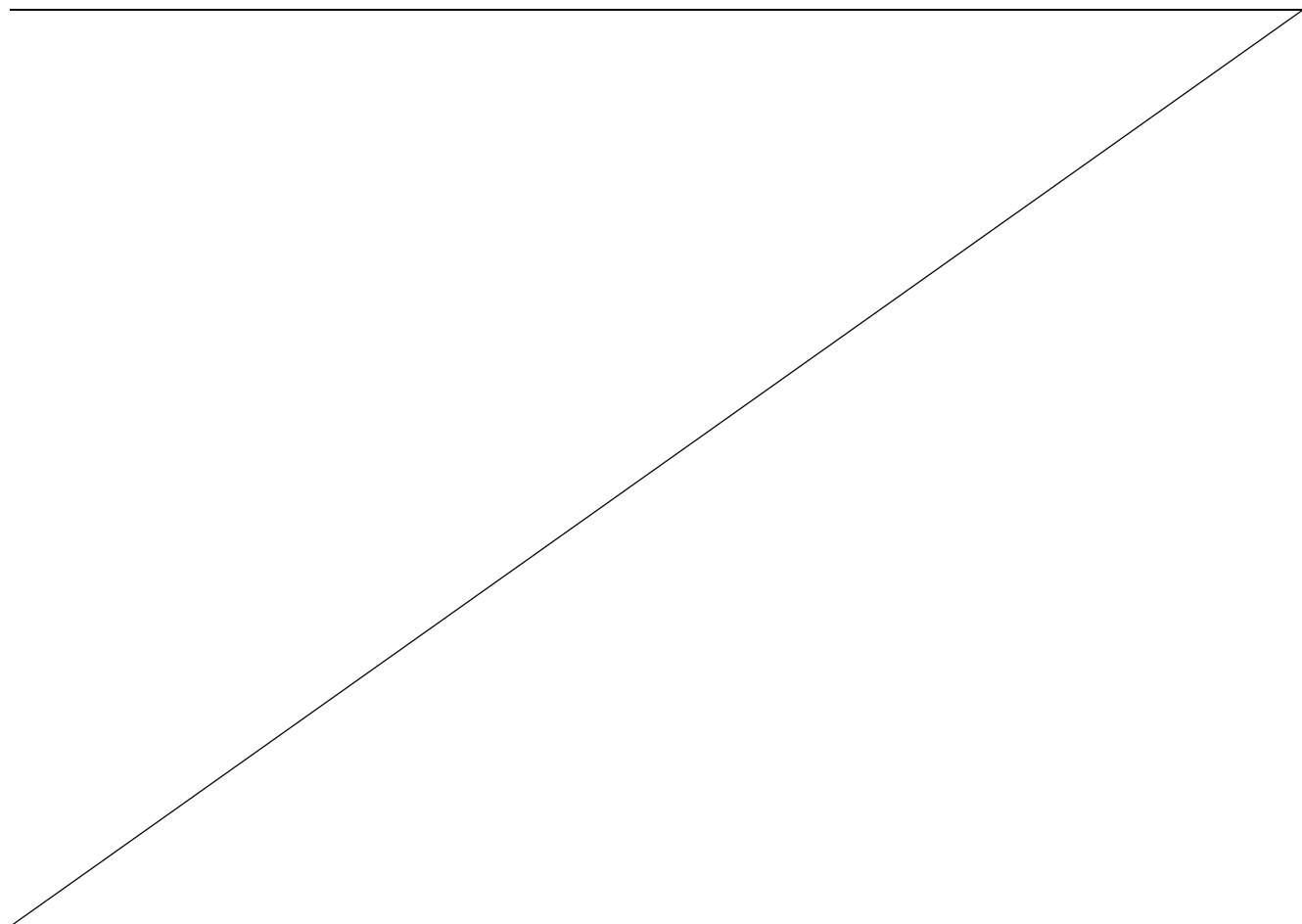
- classification for cable is valid for all numbers and cross-sections of tested cable type;
- test results of cable systems placed on a non-standard support structures are directly applied only to the tested cable systems;
- test results of cables tested at cable trays or ladders are applicable also for another products trays and ladders (cross, elbow, T-bend, bends and etc.);
- direct application of test results is possible also to other methods of joining of cable trays and cable ladders than shown of DIN 4102-12 provided they are assessed by an accredited testing laboratory;
- test result obtained from testing of cables with five or four conductors applies also to cables of the same type with smaller or greater number of conductors;
- test results obtained for cable system with cable trays are directly applicable also for usage of cable trays coverings; the coverings shall be ensured against movement with a proper manner. The weight of the cover must be added to the total load;
- test results obtained for products used for connection of cables may be directly applied also to an application with cable products from another manufacturer which were tested following this standard and that constructional realisation was assessed by an approved testing laboratory;
- **test results of cable systems with cable trays or cable ladders are applicable to cable trays and cable ladders of the same construction (material thickness, height) with width less than tested.**

#### 4.4 LABELING OF CABLE TRACK

Contractor marks cable system by attachment of label which must contain the following informations:

- name of responsible person, who installed the system;
- name of cable system as it is stated in this judgement;
- class of circuit integrity maintenance and classification report number;
- real value of mechanical loading of cable system by cables
- date of assembly of cable system.

If the track is long, it is appropriate to repeat the labeling approximately every 50 m.





## 5. LIMITATIONS

Load-bearing construction elements for fixing of cable systems must be proved for at least the same fire resistance compare to classified function in fire of cable system.  
The construction contractor is solely responsible for proper preparation.

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

The classification is valid provided that the product, field of application and standards and regulations are not changed.

Approved by:

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Prepared by:

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