

Technical Report

20-TUV-ATR-EU-0040-01

**TÜV AUSTRIA TURK**  
BELGELENDİRME EĞİTİM VE GÖZETİM  
HİZMETLERİ LTD. ŞTİ.  
Çamlık Mah. İkbal Cad. Dinç Sok.  
No:28 PK:34774  
Ümraniye / İSTANBUL – TURKEY  
[www.tuvaustriaturk.com](http://www.tuvaustriaturk.com)



Manufacturer: MEKAS KABLO SAN.ve TIC.A.Ş.  
Type: CAT7 FL09YBC11Y 4x2x0,22 mm<sup>2</sup>

## TECHNICAL REPORT

### 20-TUV-ATR-EU-0040-01

**The burning behaviour of materials used in the interior  
construction of certain categories of motor vehicles**

Test Standard

**ECE Regulation 118. 03 series of amendments dated October 18, 2018 (Part II)  
as well as tests according to**

Level of amendment

**ECE R-118.03 Supplement 1  
(Date 16th October 2018)**

Approval Status		
<input type="checkbox"/>	Granting of a type approval	
<input type="checkbox"/>	Extension to type approval number:	
<input type="checkbox"/>	Correction to type approval number:	
<input type="checkbox"/>	Only test report	
<input checked="" type="checkbox"/>	Extension to test report	20-TUV-ATR-EU-0040-01

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<b>Revision-Date</b>	03 / 11.09.2017	<b>Document No</b>	FRM-ATR-056-C	<b>Page</b>	1 of 7
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Manufacturer: MEKAS KABLO SAN.ve TIC.A.Ş.  
Type: CAT7 FL09YBC11Y 4x2x0,22 mm<sup>2</sup>

## 0. Reason for extension(s)

- Update of type name
- Editorial changes

## 1. General

- 1.1 Applicant **MEKAS KABLO SAN.ve TIC.A.Ş.**  
Osmangazi Mah.Yıldırım Beyazıt Cad.No:28/1  
Sancaktepe/İstanbul -TR
- 1.2 Manufacturer **MEKAS KABLO SAN.ve TIC.A.Ş.**  
Osmangazi Mah.Yıldırım Beyazıt Cad.No:28/1  
Sancaktepe/İstanbul TR

## 2. Features of the material

- 2.1 Type CAT7 FL09YBC11Y 4x2x0,22 mm<sup>2</sup>
- 2.1.1 Base material / designation %100 HFFR-POLÜRATAN(Halogenfree flame retardant) / DATA CABLE
- 2.2 Conductor total size (mm<sup>2</sup>): 1,76 mm<sup>2</sup>
- 2.3 Type of surface material HFFR-POLÜRATAN
- 2.4 Colour Blue
- 2.5 Min. Outside cable diameter 4,92 mm
- 2.6 Reference Number of Information Folder MEKAS01-00
- 2.7 Date of issue of Information Folder 21.06.2020

## 2.8 Equipment for measuring and testing

Equipment	Serial No.	Calibration Due Date
➤ Stopwatch	31/20-03122	01.2021 <input checked="" type="checkbox"/>
➤ Tape measure	80 / 19-38170	07.2020 <input checked="" type="checkbox"/>
➤ Caliper	154 / 901888	05.2020 <input checked="" type="checkbox"/>
➤ Thermometer	140111374 / 62	09.2020 <input checked="" type="checkbox"/>
➤ Digital scales	32/19-03065	01.2021 <input checked="" type="checkbox"/>

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2.9 Test Ambience Condition Temperature (°C) Relative Humidity (%)  
25 52

2.10 Test Location and Date TR-İstanbul / 12.03.2020

### 3. Test Record

3.1 Testing of the burning behaviour of interior materials according to ECE- R 118.03

- ECE- R 118.03 Annex 6**
- ECE- R 118.03 Annex 7**
- ECE- R 118.03 Annex 8**
- ECE- R 118.03 Annex 9**
- ECE- R 118.03 Annex 10 Paragraph 6.2.6**  
**(ISO 6722-1:2011 Item 5.22)**

### 3.2 Test results

*The reasons of extension have no effect on test results previously achieved. For this reason no tests had to be carried out. All test results are still valid. Previous results are shown below.*

- The requirements concerning the burning behaviour according to ECE-R 118 Appendix 6 / 8 are fulfilled. They were verified in
  - ↔ Horizontal direction  
**ECE-R 118.03** (Annex 6 )
  - ↓ Vertical direction and  
**ECE-R 118.03** (Annex 8 )
  - ↕ horizontal and vertical direction  
**ECE-R 118.03** ( Annex 6 and 8)
- The requirements concerning the resistance to flame propagation for cables according to **ECE- R 118.03 Annex10 Paragraph 6.2.6** (ISO 6722-1:2011 Item 5.22 are met)

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**3.2.2 ECE- R 118.03 Annex 10 Paragraph 6.2.6 (ISO 6722-1:2011 Item 5.22 are met) burning behaviour:**

i.6.2.6 Any electric cable exceeding a length of 100mm used in the vehicle shall undergo the resistance to flame propagation test described in Annex 10 to this Regulation. As an alternative to these requirements, the test procedure described in ISO Standard 6722-1:2011, Paragraph 5.22. may be applied. Yes

Test reports and approvals of components obtained according to ISO 6722:2006, Paragraph 12., shall remain valid.  
 The exposure to the test flame shall be finished: Yes

1- For single-core cables:

- a) When the conductor becomes visible, or N.A.
- b) After 15s for cables with conductor sizes less or equal than 2.5mm<sup>2</sup>, and N.A.
- c) After 30s for cables with conductor sizes greater than 2.5mm<sup>2</sup>, Yes

2- For sheathed, screened and unscreened single- or multi-core cables with a sum of conductor sizes smaller than or equal to 15mm<sup>2</sup>: N.A.

- a) Until a conductor becomes visible or for 30s, for all cables, whichever comes first,

3- For sheathed, screened and unscreened single- or multi-core cables with a sum of conductor sizes greater than 15mm<sup>2</sup>: N.A.

- a) According to (1) or (2), whichever is applicable.

Electrical cables according to (2) may be tested either completely or separately. N.A.

Electrical cables according to (3) shall be tested separately. N.A.

The result of the test shall be considered satisfactory if, taking into account the worst test result, any combustion flame of insulating material shall extinguish within 70s and a minimum of 50mm insulation at the top of the test sample shall remain unburned. Yes  
See İtem  
3.2.2.1

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**3.2.2.1. Inspections**

Cable sampe NO.	Conductor cross-section (mm <sup>2</sup> )	Flame application time until conductor wire visible (S)	Burning Time (S)	Burning distance (mm)	Unburned length of the insulation (mm)	Comments / Remarks
1	Blue 1,76 mm <sup>2</sup>	30 sn	34 sn	34 mm	445 mm	Fulfilled
2	Blue 1,76 mm <sup>2</sup>	30 sn	30 sn	32 mm	458 mm	Fulfilled
3	Blue 1,76 mm <sup>2</sup>	30 sn	28 sn	30 mm	440 mm	Fulfilled
4	Blue 1,76 mm <sup>2</sup>	30 sn	30 sn	35 mm	445 mm	Fulfilled
5	Blue 1,76 mm <sup>2</sup>	30 sn	32 sn	36 mm	447 mm	Fulfilled

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#### 4. Enclosures

- Annex 1 (Test Photos) – 1 page
- Annex 2 (Manufacturer Information Document) – 2 pages

#### 5. Statement of conformity

As the result of inspections of **MEKAS KABLO SAN.ve TIC.A.Ş.** component sample, it has been confirmed that the sample have fulfilled the requirements related to the ECE R-118.03 as given.

This test report must not be duplicated without written approval of **TÜV AUSTRIA TURK BELGELENDİRME EĞİTİM VE GÖZETİM HİZMETLERİ LTD. ŞTİ.**

This report is not valid without security hologram in this page.

This test report consists of 7 pages.

Approval authority	Country	Registration number	Actual scope list
Sanayi ve Teknoloji Bakanlığı	Türkiye	21676894-130.01-E246	<a href="https://www.sanayi.gov.tr/page.html?sayfald=4e4d87f0-d8e5-453b-9b46-9b44c2d0a138&amp;lang=tr">https://www.sanayi.gov.tr/page.html?sayfald=4e4d87f0-d8e5-453b-9b46-9b44c2d0a138&amp;lang=tr</a>
National Standards Authority of Ireland (NSAI)	Ireland	Technical Service Number: 108	<a href="https://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wg/s/wp29gen/wp29doc/02-ECE-TRANS-WP.29-343-Rev.26.pdf">https://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wg/s/wp29gen/wp29doc/02-ECE-TRANS-WP.29-343-Rev.26.pdf</a>

TR- İstanbul  
24.06.2020

Özlem OK  
A Check

Abdullah ATEŞ  
Q Check



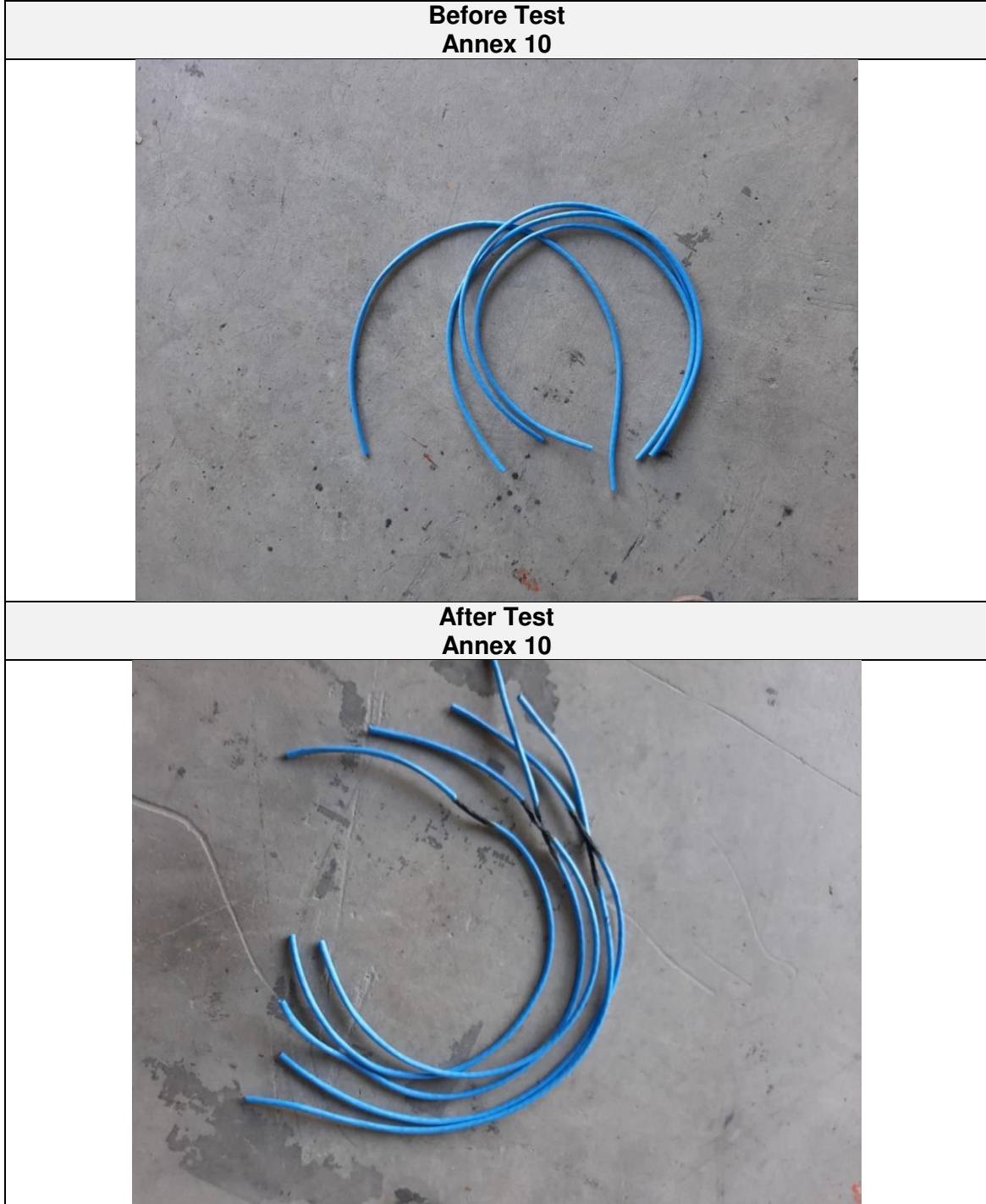
Kenan KAŞIKCI  
Recognized  
Expert/Signature




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### Test Photos - Annex 1

ECE- R 118.03 Annex 10 Paragraph 6.2.6 (ISO 6722-1:2011 Item 5.22 are met) burning behaviour:




	<b>INFORMATION DOCUMENT</b>	Document No.	MEKAS01-00
		Issue Date	16.03.2020
		Extension Date	21.06.2020
	Regulation 118.03 Supplement 1	Extension Number	01
	TYPE: CAT7 FL09YBC11Y 4x2x0,22 mm <sup>2</sup>	Page	1 / 2

## Annex 2

### INFORMATION DOCUMENT FOR COMPONENT ( R118.03 Annex 2 ) AKSAMLAR İÇİN BİLGİ DÖKÜMANI ( R118.03 Ek 2 )

<b>0.</b>	<b>REASON FOR EXTENSION(S)</b>	
	Update of type name Editorial changes	
<b>1.</b>	<b>GENERAL / GENEL</b>	
1.1.	<i>Make (trade name of manufacturer) / Üretici adı</i>	MEKAS KABLO SAN.ve TIC. A.Ş.
1.2.	<i>Type and general commercial description(s) /Tip ve genel ticari tanım (lar)</i>	CAT7 FL09YBC11Y 4x2x0,22 mm <sup>2</sup> / N.A.
1.3.	<i>Name and address of manufacturer / Üretici adı ve adresi</i>	MEKAS KABLO SAN.ve TIC. A.Ş. Osmangazi Mah. Yıldırım Beyazıt Cad. No:28/1 Sancaktepe / İSTANBUL - TURKEY
1.4.	<i>In the case of components and separate technical units, location and method of affixing of the approval / Ayrı teknik ünite ve aksam durumunda onay işareti oluşturma metodu ve yeri</i>	N.A.
1.5.	<i>Address(es) of assembly plant(s) / Montaj yer(leri) adresi</i>	MEKAS KABLO SAN.ve TIC. A.Ş. Osmangazi Mah. Yıldırım Beyazıt Cad. No:28/1 Sancaktepe / İSTANBUL - TURKEY
<b>2.</b>	<b>INTERIOR MATERIALS / İÇ TRİM MALZEMELERİ ( * )</b>	
2.1.	<i>Material(s) intended for horizontal / vertical / horizontal and vertical installation. Material intended to be installed more than 500mm above the seat cushion and/or on the ceiling of the vehicle: yes / not applicable / Malzeme yatay / dikey / yatay ve dikey kullanım içindir. Malzeme koltuk minderi üzerinden 500 mm den fazla bir yükseklikte ve/veya araç tavanındadır : Evet / Hayır</i>	N.A.
2.2.	<i>Base material(s)/designation/Baz malzeme(ler)/tanım</i>	N.A.
2.3.	<i>Composite/single material, number of layers / Kompozit/tek katman malzeme, kat sayısı</i>	N.A.
2.4.	<i>Type of coating(*) / Kaplama tipi</i>	N.A.
2.5.	<i>Maximum/minimum thickness mm / Maks / min kalınlık mm</i>	N.A.



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2.6.	<i>Type-approval number, if available / Varsa tip onay no</i>	N.A.
<b>3.</b>	<b>INSULATION MATERIALS / İZOLASYON MALZEMESİ ( * )</b>	
3.1.	<i>Material(s) intended for horizontal / vertical / horizontal and vertical installation / Malzeme yatay / dikey / yatay ve dikey kullanım içindir</i>	N.A.
3.2.	<i>Base material(s)/designation / Baz malzeme(ler)/tanım</i>	N.A.
3.3.	<i>Composite/single(*) material, number of layers / Kompozit/tek katman malzeme, kat sayısı</i>	N.A.
3.4.	<i>Type of coating(*) / Kaplama tipi</i>	N.A.
3.5.	<i>Maximum/minimum thickness mm / Maks / min kalınlık mm</i>	N.A.
3.6.	<i>Type-approval number, if available / Varsa tip onay no</i>	N.A.
<b>4.</b>	<b>ELECTRIC CABLES / ELEKTRİK KABLOSU ( * )</b>	
4.1.	<i>Material(s) used for / Malzeme(ler) kullanım yeri</i>	DATA KABLOSU
4.2.	<i>Base material(s)/designation / Baz malzeme(ler)/tanım</i>	100% HFFR-POLÜRATAN(Halogenfree flame retardant)
4.3.	<i>Composite/single material, number of layers / Kompozit/tek katman malzeme, kat sayısı</i>	Single
4.4.	<i>Type of coating (*) / Kaplama tipi</i>	100% HFFR-POLÜRATAN(Halogenfree flame retardant)
4.5.	<i>Maximum/minimum thickness mm / Maks / min kalınlık mm</i>	4,92 mm
4.6.	<i>Type-approval number, if available / Varsa tip onay no</i>	N.A.