



5299

Original → chainflex®

Test No.:

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Test Intention:

In this test we want to investigate the lifespan of our CF35.UL.25.04 in an e-chain with a 63mm radius.

Client:							
Name: C. Mittelstedt	Team: chainflex	®	Date:	04.06.2018			
Order-Info:	-		-				
Customer / No.: igus [®] GmbH, Spicher Str.1a, 51147 Köln							
Series / No: CF35.UL		Installation type: horizon	tal				
Customer test: Yes	No 🖂	Development test:	Yes 🛛 No	D 🗌			
Technical data		Target & Examination					
e-chain [®] type: E4.28.1	100.063.0	Target [strokes]:	Lifespan	1			
e-chain [®] radius [mm]: 63		Optical check:	\boxtimes				
Stroke [m]: 1,6		Fluke DTX-ELT:					
Cable length [m]: 3,0		Standard measuring:	\boxtimes				
Ambient temperature [°C]: approx.	. 25°C	AutΩMeS:					
Experimental setup							
 Additional inscription/label at all wires strain reliefs at both ends of the characteristic connection of all wires correct electrical connection of all wires radius was marked at the cables an 1. Construction: This test is built up on the "2m Bahranna and an and an an	ain ⁄ires id the energy chain	eture shows the test stru	ucture:				

Ch. Mittelstedt/Versuch/10.12.2021

The managing data show the results of the accomplished examinations. With all data it still acts neither around one or more warranties of certain characteristics around one or more warranties regarding the suitability of a product for a certain targeted application, since the examinations on laboratory conditions took place. The warranty of certain characteristics of the products and/or their suitability for a certain application requires writing in the confirmation of order. Finally we recommend user-specific measurements under genuine operating conditions.



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2. Cable and hose packages:

No. 1: **3x CF35.UL.25.04** with the cable marking 04714m igus chainflex CF35.UL.25.04 (4G2,5)C 600/1000V E310776 N csUus AWM Style 21184 VW-1 AWM I/II A/B 80°C 1000V FT1 DNV-GL 61 938-14 HH EAC / CTP CE N U/BC RoHS-II conform www.igus.de

3. Description of the cable construction:

Standard igus chainflex® catalogue cable

4. Remarks:

To detect broken conductor or shielding wires we will measure the ohmic resistance of these cable elements. The cores of the samples are connected in series and one core is connected with the shielding to measure the ohmic resistances.

The following chart gives an overview regarding the test parameters:

Cable no.	Cable type	e-chain radius [mm]	External diameter [mm]	Bending factor test [xd]	Bending factor catalogue [xd]
1.X	CF35.UL.25.04	63	10,8	5,8	7,5

Cable no.	0.00	Cable type		Counter reading		E	Effectively	Cable okay
Cable	e no.	Cable type		mounting	demounting	test	ed strokes	after strokes
1.	.1	CF35.UL.25.0	04	74.990.325	89.033.375	14	.043.050	14.043.050
1.	.2	CF35.UL.25.0	04	74.990.325				
1.	.3	CF35.UL.25.0	04	74.990.325				
Test-order was checked by [Martin Göllner or Christian Mittelstedt and further employee]								
Date:	25.00	6.2018	Name:		Ν	lame:	C. Mittel	stedt



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Result

Start report 25.06.2018:

At the 25.06.2018 we started the test 5299 at a counter reading of 74.990.325, we will measure the ohmic resistance regularly.

Interim report 09.05.2019:

At the 09.05.2019 we demounted the cables no. 1.1 after 14.043.050 strokes, to check the inner structure of the cable elements.

The following diagram shows the trend of the ohmic resistances during the test:

chaintlex Trend of the ohmic resistances 100 90 80 Ohmic resistance in [mΩ] 70 60 50 40 30 20 10 0 0 2.000.000 4.000.000 6.000.000 8.000.000 10.000.000 12.000.000 14.000.000 16.000.000 Strokes 1.1 CF35.UL.25.04 Cores 1.1 CF35.UL.25.04 Shielding 1.2 CF35.UL.25.04 Cores 1.2 CF35.UL.25.04 Shielding 1.3 CF35.UL.25.04 Cores -1.3 CF35.UL.25.04 Shielding





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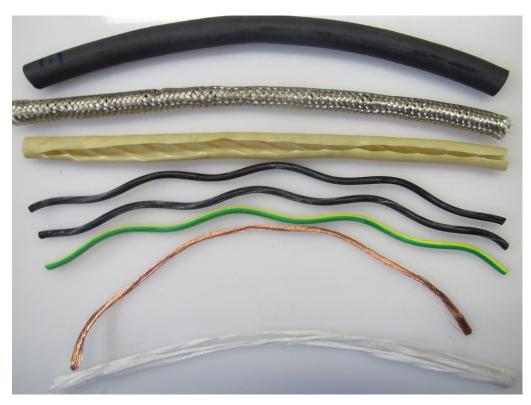
Evaluation

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Dissection report:

The following pictures show the dissected elements of the cables

The condition of the cable no. 1.1 (CF35.UL.25.04) after 14.043.050 strokes



Strokes	14.043.050
Condition outer jacket	Slightly abrasion
Condition overall shielding	0.K.
Condition core insulation	0.K.
Condition conductor	О.К.

	Name: 1	Ø. <i>P</i> Jiskalla	Date:	12.07.2021
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