



Test No.:

4826

Test Intention:

page 1 of 4

In test 4826 we want to investigate the lifespan of our CF27.25.15.02.01.D in an e-chain with a 100mm radius.

Client:				
Name: R. Rössel	Team: chainflex	®	Date:	30.04.2013
Order-Info:				
Customer / No.: igus® GmbH, Spicher	Str.1a, 51147 Köln			
Series / No: CF27.D		Installation type: horizontal short way		
Customer test: Yes 🗌 No 🖂		Development test: Yes 🛛 No 🗌		
Technical data		Target & Examination		
e-chain [®] type: E6.29.120.100.0		Target [strokes]:	Lifespar	1
e-chain [®] radius [mm]: 100		Optical check: 🛛		
Stroke [m]: 2,1		Function check:		
Ambient temperature [°C]: approx. 25°C		Standard measuring:		
Cable length [m]: 5,0		AutΩMeS:	\bowtie	
Experimental setup				
 Additional inscription/label at all wire strain reliefs at both ends of the characteristic correct electrical connection of all wire radius was marked at the cables and the	ain ⁄ires id the energy chain	g picture shows the tes	t structure	5:

Ch. Mittelstedt/Versuch/11.10.2011

For internal use only

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.

Original → chainflex R&D



Test-Report chainflex[®]



page 2 of 4

Test No.:

4826

2. Cable and hose packages: No. 1: 1x CF27.25.15.02.01.D with the cable marking 00687m igus chainflex CF27.25.15.02.01.D (4G2,5(2x1,5)C)C 600/1000 V E310776 N CAJus AWM Style 21223 VW-1 AWM I/II A/B 80°C 1000V FT-1 CE N P/AE 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: E-chain radius Outer diameter **Bending factor** Bending factor Cable no. Cable type catalogue [xd] [mm] [mm] [xd] 1.X CF27.25.15.02.01.D 100 14,2 7,0 7,5 Counter reading Effectively Cable okay Cable no. Cable type tested strokes after ... strokes ... mounting ... demounting 27.996.464 27.996.464 1.1 CF27.25.15.02.01.D 24.906.673 52.903.137 Test-order was checked by ... [Martin Göllner or Rainer Rössel and further employee] 08.05.2013 C. Mittelstedt Date: Name: Name:





page 3 of 4

Test No.:

Result

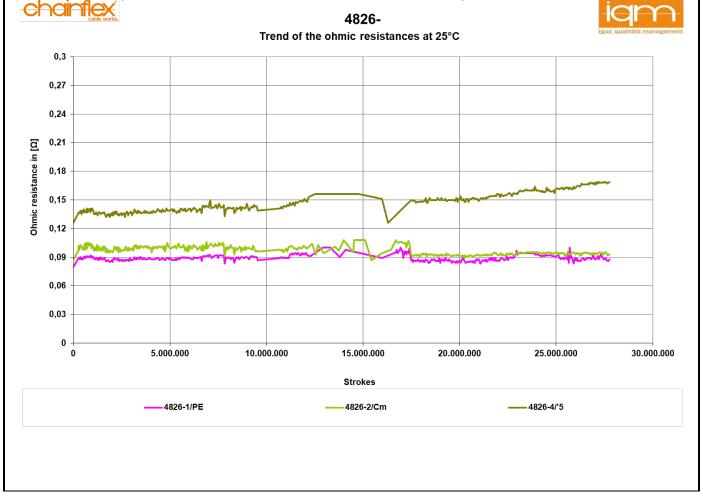
Start report 08.05.2013:

At the 08.05.2013 we started the test 4826 at counter reading 24.906.673, we will measure the ohmic with AutΩMeS.

Interim report 18.08.2015:

At the 18.08.2015 we demounted the cable after 27.996.464 strokes, because we want to finalize the test.

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







Test No.:

4826

Evaluation

page 4 of 4

Dissection report:

The following pictures show the dissected elements of the cables

The condition of the cable no.1.1 (CF27.25.15.02.01.D) after 27.996.464 strokes



Strokes	27.996.464	
Condition outer jacket	0.K.	
Condition overall shielding	0.K.	
Condition inner jacket	О.К.	
Condition centre element	О.К.	
Condition core insulation	О.К.	
Condition conductor	О.К.	
Element cores		
Condition element banding	Ruptured	
Condition element shielding	Ruptured	
Condition core insulation	О.К.	
Condition conductor	Single broken wires	

Name: Christian Mittelstedt

23.09.2015

Date:

Ch. Mittelstedt/Versuch/11.10.2011 For internal The m use only neithe regard

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.