



4956

Test No.:

page 1 of 3

#### **Test Intention:**

In test 4956 we want to investigate the lifespan of a CF430.950.01.D in an e-chain with a 175mm radius.

Client:						
Name: Christian Mittelstedt	Team: chainflex	®	Date:	28.08.2014		
Order-Info:						
Customer / No.: igus <sup>®</sup> GmbH, Spicher Str.1a, 51147 Köln						
Series / No: CF430.950.01.D		Installation type: horizontal, short way				
Customer test: Yes 🗌	No 🖂	Development test:	Yes 🛛 N	o 🗌		
Technical data		Target & Examination				
e-chain <sup>®</sup> type: E4.32.0	05.175.0	Cable length [m]:	8,0			
e-chain <sup>®</sup> radius [mm]: 175		Target [Strokes]:	Lifespar	n		
Stroke [m]: 1,2		Optical check:	$\boxtimes$			
Acceleration <b>a</b> [m/sec <sup>2</sup> ]: 3,0		Function check:				
Velocity v [m/s]: 1,2		Standard measuring:	$\square$			
Ambient temperature [°C]: approx	. 25°C	AutΩMeS:				
Experimental setup		•	-			
Checklist for the experimental preparations            ☐ additional inscription/label at all wires         ☐ strain reliefs at both ends of the chain         ☐ correct electrical connection of all wires         ☐ radius was marked at the cables and the energy chain						
<section-header></section-header>						

Ch. Mittelstedt/Versuch/11.10.2011 For internal The n

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**<sup>®</sup>



page 2 of 3

4956

Test No.:

No.	No. 1: 2x CF430.950.01.D with the cable marking 00679m igus chainflex CF430.950.01.D 1x95 600/1000V CE N Q/AD RoHS-II conform www.igus.de								
<ul> <li>B. Description of the cable construction:</li> <li>Standard igus chainflex<sup>®</sup> cable, construction details see catalogue</li> <li>Remarks:</li> </ul>									
Cable no.	g chart gives an overview Cable type	E-chain radius [mm]	Outer diameter [mm]	Bending factor [xd]	Bending factor catalogue [xd]				
1.X	CF430.950.01.D	175	20,9	8,4	10,0				
1.X Cable no.	CF430.950.01.D Cable type	Counte	r reading	8,4 Effectively tested Strokes	Cable okay				
				Effectively	· · ·				
Cable no. 1.1	Cable type	Counte mounting 35.879.545	r reading demounting	Effectively tested Strokes	Cable okay				





page 3 of 3

4956

Test No.:

#### Result

## Start report 01.09.2014:

At the 01.09.2014 we started the test 4956 at a counter reading of 35.879.545, we will measure the ohmic resistance regularly.

## Interim report 09.06.2015:

The following diagram shows the trend of the ohmic resistances after 17.097.050 strokes:

# **chainflex** Trend of the ohmic resistances 5 4,5 4 3,5 Ohmic resistance in [mΩ] 3 2,5 2 1,5 1 0,5 0 2.000.000 20.000.000 0 4.000.000 6.000.000 8.000.000 10.000.000 12.000.000 14.000.000 16.000.000 18.000.000 Strokes -CF430.950.01.D

Ch. Mittelstedt/Versuch/	1.10.2011	Original	→ chainflex R&D
For internal	The managing data show the results of the accomplished examinations. With all data it still acts	-	
use only	neither around one or more warranties of certain characteristics around one or more warranties		
	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.		