

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® GmbH, Spicher Str.1a, 51147 Köln

Series / No: CF430.950.01.D Installation type: horizontal, short way

Customer test: Yes No Development test: Yes No

Technical data

Target & Examination

e-chain® type: E4.32.05.175.0

Cable length [m]: 8,0

e-chain® radius [mm]: 175

Target [Strokes]: **Lifespan**

Stroke [m]: 1,2

Optical check:

Acceleration a [m/sec²]: 3,0

Function check:

Velocity v [m/s]: 1,2

Standard measuring:

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

1. Construction:

This test is built up on the „2mBahr“. The following picture shows the test structure:



2. Cable and hose packages:

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*

3. Description of the cable construction:

Standard igus chainflex® cable, construction details see catalogue

4. Remarks:

The following chart gives an overview regarding the test parameters:

Cable no.	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

Cable no.	Cable type	Counter reading		Effectively tested Strokes	Cable okay after ... Strokes
		... mounting	... demounting		
1.1	CF430.950.01.D	35.879.545			

Test-order was checked by ... [Martin Göllner or Rainer Rössel and further employee]

Date:	28.08.2014	Name:		Name:	Ch. Mittelstedt
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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:



Trend of the ohmic resistances

