

# **Test-Report drylin®**



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# Test Intention: wear after 100.00 cycles

### Intentior

In this test we compared three different types of nuts / steel lead screw systems and wanted to investigate the wear after 100.000 cycles.

Name: Stefan Niermann  Team: drylin®  Date: KW 40/2014  Order-Info:  Customer / No.: intern  Series / No: intern  Customer test: Yes x No  Development test: Yes No x  Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / nut stainless steel lead screw, iglide® J / DST® lead screw is glide® 100 pm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.					
Order-Info:  Customer / No.: intern  Series / No: intern  Customer test: Yes X No □ Development test: Yes □ No X  Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Client:				
Customer / No.: intern  Series / No: intern  Customer test: Yes X No Development test: Yes No X  Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw iglide® J / DST® lead screw  Totation/speed 100rpm  The experimental setup is shown in picture 1.	Name:	Stefan Niermann	Team: drylin®		Date: KW 40/2014
Series / No: intern  Customer test: Yes X No Development test: Yes No X  Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Order-I	nfo:			
Customer test: Yes X No Development test: Yes No X  Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Custom	er / No.: intern			
Technical data  PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Series /	No: intern		Installation type:	
PA+PTFE / stainless steel lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Custom	er test:	Yes X No 🗌	Development test:	Yes 🗌 No X
lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead screw  load 200N cycles 100.000  stroke 140mm temperature ~23°C  rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.	Technic	cal data			
stroke 140mm temperature ~23°C rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.		nut	lead screw, POM+PTFE / stainless steel lead screw, iglide® J / DST® lead	lubrication	no
rotation/speed 100rpm thread DS10x25, 3/8"-1"  Experimental setup  The experimental setup is shown in picture 1.		load	200N	cycles	100.000
Experimental setup  The experimental setup is shown in picture 1.		stroke	140mm	temperature	~23°C
The experimental setup is shown in picture 1.		rotation/speed	100rpm	thread	DS10x25, 3/8"-1"
	Experir	nental setup			

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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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iglide® J / DST® lead screw

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# Result graph 1: wear after 100.000 cycles wear after 100.000 cycles parameter: stroke 140mm/ 100rpm/ load 200N/ no lubrication

The results of the test are shown in table 2.

screw

1,5

0,5

### table 2:

ı	tubio E.			
		Competitor A PA+PTFE / stainless steel lead screw	Competitor B POM+PTFE / stainless steel lead screw	iglide® J / DST® lead screw
l	wear	4,44	2,54	1,7

screw nut and screw

competitor A PA+PTFE / stainless steel lead competitor B POM+PTFE / stainless steel lead

## **Evaluation**

The wear characteristics of all tested materials are different. The wear of iglide® J is significantly better than those of the competitors A und B. At a wear of 1,7  $\mu$ m, iglide® J has about 61% and 33% lower wear than the other tested materials.

Name: Date: KW 40/2014	
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