HellermannTyton

From: **Quality Assurance HellermannTyton GmbH**

Subject: PPAP Approval signature deadline

Dear customer:

As you are aware the PPAP process is an integral part of our business. With that in mind, we are informing our customers who are requesting a PPAP that there is a 30 day (calendar) deadline to which we are expecting your reply back with a signed copy of the PSW with a disposition regarding it´s validity. It is important that we maintain compliance to the current AIAG PPAP manual.

As a part of compliance a signed and approved PSW is essential for our records.

We reserve the right to consider that PPAP valid and complete, if we do not receive a signed copy of the PSW within 30 days (calendar).

Once you have received our PPAP information please e-mail us a copy of your disposition with the appropriate signatures as soon as possible to the following person:

nescha.lohse@HellermannTyton.de Quality Assistant phone: +49 (0) 4122 701 5726

Your cooperation is greatly appreciated!

Respecting the procedure as described above, the documentation with HellermannTyton PB-No.: **99646** with submission date 27.09.2022 will be considered as complete and valid automatically on **27.10.2022** unless otherwise disposed!

HellermannTyton

HellermannTyton GmbH internal remarks: PB-No.: **99646**

Part Describtion: T50SOSFT6E3 GPN 140904

Part Submission Warrant

Part Name **T50SOSFT6E3** Cust. Part Number **FU5T-14E047-LA**

Shown on Drawing No. **14-0904-003-CSG** Org. Part Number **15700241**

Engineering Change Level **01.4** Dated **07.06.2022**

Additional Engineering Changes **n/a** Dated **n/a**

Safety and/or Government Regulation ☐ Yes ☑ No Purchase Order No. **15700241** Weight (kg) **0,0015**

Checking Aid No. **n/a** Checking Aid Engineering Change Level **n/a** Dated **n/a**

ORGANIZATION MANUFACTURING INFORMATION

HellermannTyton GmbH **DUNS: 315430892**
Organization Name & Supplier/Vendor Code

Großer Moorweg 45
Street Address

Tornesch Region **25436** **Germany**
City Postal Code Country

CUSTOMER SUBMITTAL INFORMATION

Nursan Kablo Donanimlari **(30471)**
Customer Name/Division

Nadiye BARUTÇU
Buyer/Buyer Code

various
Application

MATERIALS REPORTING

Has customer-required Substances of Concern information been reported? ☑ Yes ☐ No ☐ n/a

Submitted by IMDS or other customer format: **577689953**

Are polymeric parts identified with appropriate ISO marking codes? ☐ Yes ☐ No ☑ n/a

REASON FOR SUBMISSION (Check at least one)

- ☑ Initial Submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts Produced at Additional Location
- ☐ Other - please specify below

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☑ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☐ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location.

SUBMISSION RESULTS

The results for ☑ dimensional measurements ☑ material and functional tests ☐ appearance criteria ☑ statistical process package

These results meet all design record requirements: ☑ Yes ☐ No (If "No" - Explanation Required)

Mold / Cavity / Production Process **injection moulding / serial mold**

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of confidential - pcs / 24 hours.

I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from this declaration below.

EXPLANATION/COMMENTS:

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ n/a

Organization Authorized Signature **i.A.** N. Lohse Date 27-Sep-22

Print Name **i.A. N. Lohse** Phone No. +49 (0) 4122 701 5726 Fax No. +49 4122 701 241

Title **Quality Assistant** E-mail nescha.lohse@HellermannTyton.de

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature Date

Print Name Customer Tracking Number (optional)

Production Part Approval, Dimensional Results

HellermannTyton

Internal PB-No.: **99646**

Production Part Approval
Dimensional Test Results

ORGANIZATION:	**HellermannTyton GmbH**	PART NUMBER:	**FU5T-14E047-LA**
SUPPLIER/VENDOR CODE:	**DUNS: 315430892**	PART NAME:	**T50SOSFT6E3**
INSPECTION FACILITY:	**QS-Laboratory**	DESIGN RECORD CHANGE LEVEL:	01.4 07.06.2022
		ENGINEERING CHANGE DOCUMENTS:	
		NAME of LABORATORY:	

ITEM	DIMENSION / SPECIFCATION	SPECIFICATION / LIMITS	TEST DATE	QTY. TESTED	SUPPLIER TEST RESULTS (DATA)			OK	NOT OK
					mean	min	max		
1	9,6	± 1,0			9,6	9,6	9,7	✓	
2	8,45	± 0,5			8,41	8,39	8,44	✓	
3	4,7	± 0,2			4,6	4,6	4,6	✓	
4	161,5	± 5,0			162,4	162,2	162,6	✓	
5	Ø16	± 1			16,0	16,0	16,0	✓	
6	1,4	± 0,2			1,32	1,32	1,33	✓	

Blanket statements of conformance are unacceptable for any test results.

This letter is done automatically and is valid without signature.

CREATOR	TITLE	DATE
i.A. N. Lohse	Quality Assistant	27-Sep-22

Production Part Approval, Performance Test Results

HellermannTyton

Internal PB-No.: **99646**

Production Part Approval
Performance Test Results

ORGANIZATION:	**HellermannTyton GmbH**	PART NUMBER:	**FU5T-14E047-LA**
SUPPLIER/VENDOR CODE:	**DUNS: 315430892**	PART NAME:	**T50SOSFT6E3**
MATERIAL SUPPLIER:		DESIGN RECORD CHANGE LEVEL:	01.4 07.06.2022
*CUSTOMER SPECIFIED SUPPLIER/VENDOR		ENGINEERING CHANGE DOCUMENTS:	
*If source approval is req`d, include the Supplier (Source) Customer assigned code.			

	MATERIAL SPEC. NO. / REV / DATE	SPECIFICATION / LIMITS	TEST DATE	QTY. TESTED	SUPPLIER TEST RESULTS (DATA) / TEST CONDITIONS			OK	NOT OK
								☐	☐
7	**Serrated side**				**Is serrated side as shown on drawing**			☑	☐
								☐	☐
8	**Bundle Ø**	**1 - 35mm**			**Suitable for bundle Ø 1 - 35mm**			☑	☐
								☐	☐
					mean	**min**	**max**	☐	☐
9	**Tensile force**	**150N**			**192N**	**184N**	**202N**	☑	☐
								☐	☐
10	**Hole size**	**6,5 ± 0,4mm**			**Suitable for hole size 6,5 ± 0,4mm**			☑	☐
								☐	☐
11	**Panel thickness**	**0,7 - 3,5mm**			**Suitable for panel thickness 0,7-3,5mm**			☑	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐
								☐	☐

Blanket statements of conformance are unacceptable for any test results.

This letter is done automatically and is valid without signature.

CREATOR	**TITLE**	**DATE**
i.A. N. Lohse	Quality Assistant	27-Sep-22

Production Part Approval, Material Test Results

HellermannTyton

Internal PB-No.: **99646**

Production Part Approval
Material Test Results

ORGANIZATION:	**HellermannTyton GmbH**	PART NUMBER:	**FU5T-14E047-LA**
SUPPLIER/VENDOR CODE:	**DUNS: 315430892**	PART NAME:	**T50SOSFT6E3**
MATERIAL SUPPLIER:		DESIGN RECORD CHANGE LEVEL:	01.4 07.06.2022
*CUSTOMER SPECIFIED SUPPLIER/VENDOR		ENGINEERING CHANGE DOCUMENTS:	
*If source approval is req`d, include the Supplier (Source) Customer assigned code.		NAME of LABORATORY:	

	MATERIAL SPEC. NO. / REV / DATE	SPECIFICATION / LIMITS	TEST DATE	QTY. TESTED	SUPPLIER TEST RESULTS (DATA)	OK	NOT OK
						☐	☐
12	**PA6.6 HIRHS**				**Material is PA6.6 HIRHS**	☐	☐
						☐	☐
13	**Color: black**				**Color is black**	☐	☐

Blanket statements of conformance are unacceptable for any test results.

This letter is done automatically and is valid without signature.

CREATOR	TITLE	DATE
i.A. N. Lohse	Quality Assistant	27-Sep-22

ASCEND.
PERFORMANCE MATERIALS

HELLERMANN TYTON GMBH
GROSSER MOORWEG 45
TORNESCH, GERMANY 25436
Attention : AXEL LANG

Ascend Performance Materials Operations LLC
Nylon Plastics and Polymers
3000 Chemstrand Road
Cantonment, FL 32533
Telephone : (850)968-7000

Certificate Date : 04-Mar-22
Delivery No : 382607871
Shipped Qty : 11,022.928 Lbs
5,000.000 Kgs
Customer P.O. No: 4500171533 AIFREIGHT
Container : 00000000000002089636

Certificate of Analysis

This certifies that Nylon Resin shipped to you from Ascend Performance Materials Operations LLC has been tested and found to meet required specifications.

This material was produced under a Quality System that meets ISO 9001:2015 and IATF 16949:2016 criteria.

If you have questions or concerns about this Certificate of Analysis, please contact Ascend Performance Materials Customer Operations at 1-888-927-2363.

This product meets the requirements of the following specifications: SAE J1639, SAE J1639 PA0171, ASTM D6779-PA0161-Z1Z2, ASTM D4066 PA0161, FMVSS 302, MS-DB-41 CPN 1826, ESB-M4D178-A2, WSS-M99P23-C1/C2, WSS-M99P9999-A1, WSSM4D706B1, WSS-M99P1111-A, WSS-M4D706-A4, WSK-M4D706-A, GMW16447P-PA66-T2, GMW16558P-PA66-T1 and GMP.PA66.015, Ford WQ 100C.

Material: VYDYNE 47H BK0644 **Material No:** 10397365 **Batch No:** KA18FY04 **Date of Mfg:** 18-Jan-2022

Ascend Performance Materials Operations LLC Specification

Lot Data Property	Test Method	Min	Max	Result	Units
Copper	STM 00667	125	250	202	PPM
Moisture	STM 00835	0.10	0.20	0.10	%
NOTCHED CHARPY	STM 01255	14.0		21.0	kJ/m^2
Strength @ Yld	STM 01253	50	70	58	MPa

HellermannTyton

P-FMEA	**B-00**	**Project- No** GPN / NT Nr.	**variable**	**Revision date** Überarbeitungsdatum	**04.05.2022**
Product Group Produkt Gruppe	**cable ties (Kabelband)**	**Installation location** Verbauort des Bauteils		**Revision by** Überarbeitet durch:	**M. Michel**
Part No Artikel Nr.	**variable**	**Drawing number** Zeichnung Nr.	**variable**	**Review Date** Überprüfungsdatum	**04.05.2023**
Part Description Artikel Bezeichnung	**variable**	**Ind. Of Drwg. /date** Zg. Index / Datum	**variable**	**Reviewed by** Überprüft durch	**M. Michel**
Core Team FMEA Team	**M.Michel Prod., O.Pracht QS, H.Spieß PE, Ch. Sievert NT-PM**				
Process Responsibility Prozessverantwortung bei	**HT-Tornesch**	**Version of FMEA** Version der FMEA	**14**	This FMEA is generated and administrated electronically. Valid without signature. Diese FMEA ist elektronisch erstellt und verwaltet. Gültig ohne Unterschrift.	
Prepared by Erstellt von	**Marco Michel**	**Original Issue Date** Erstausgabe Datum	**20.05.2010**		

We confirm that we have process FMEA´s available - They are valid for the parts belonging to the Product Group mentioned above.

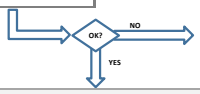
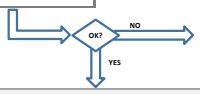
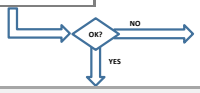
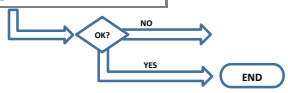
Due to confidentially reasons all further pages of this Process-FMEA need to remain internally, they should not be distributed to external!

In case of entitled interests this documents can be reviewed upon request and on site.

Process Flow Chart

PART NUMBER:	157-00241	GPN:	14-0904
PART NAME:	T50SOSFT6E3-PA66HIRHS-BK		
DRAWING :	FU5T-14E047-LA		
PRODUCT GROUP:	B-00	PRODUCTION PLANT:	HT Tornesch

CORE TEAM:	PE, NTPM, QM, PR
KEY CONTACT PHONE:	+49 4122 701 330
DATE REVIEWED:	01.07.2022
CUSTOMER APPROVAL:	

Process / test procedure			document
100	goods in		
	20	incoming inspection	
		011-50005 PA66 HIR HS UV BK	
			VA13.1
200	injection moulding		
	50	process inspection first / final shot + 1 per shift visual attributes 1-9 by production / for process parameter see EDP-System	
		157-00241 T50SOSFT6E3-PA66HIRHS-BK	
			VA13.1
500	packaging		
	55	packaging inspection	
		157-00241 T50SOSFT6E3-PA66HIRHS-BK	
			VA13.1
1000	ARTICLE-AUDIT		
	100	annual layout	
		157-00241 T50SOSFT6E3-PA66HIRHS-BK	
			VA13.1

Control Plan

rev: 29.09.2017

○ Prototyp
○ Pre-Launch
◉ Production

PART NUMBER: 157-00241 GPN: 14-0904
PART NAME: T50SOSFT6E3-PA66HIRHS-BK
DRAWING : FU5T-14E047-LA
PRODUCT GROUP: B-00 PRODUCTION PLANT: HT Tornesch

CORE TEAM: PE, NTPM, QM, PR
KEY CONTACT PHONE: +49 4122 701 330
DATE REVIEWED: 01.07.2022
CUSTOMER APPROVAL:

Part / Prozess No / Characteristic	SC	Part / Prozess Specification / Tolerance	Sample Size	Frequenz	Evaluation / Measurement Technique Control Method	Reaction Plan
20 incoming inspection						VA13.1
011-50005 PA66 HIR HS UV BK						
302 COC residual moisture			1 bag	1 / delivery	410000 manual / visual	
50 process inspection						VA13.1
157-00241 T50SOSFT6E3-PA66HIRHS-BK						
1 sink marks			1 shot	1 / day	503967 Master Samples, visual	
2 shortage			1 shot	1 / day	503967 Master Samples, visual	
3 Flashes			1 shot	1 / day	503967 Master Samples, visual	
4 mould mis alignment			1 shot	1 / day	503967 Master Samples, visual	
5 moulding lines			1 shot	1 / day	503967 Master Samples, visual	
6 burnings			1 shot	1 / day	503967 Master Samples, visual	
7 dirt			1 shot	1 / day	503967 Master Samples, visual	
8 deformation			1 shot	1 / day	503967 Master Samples, visual	
9 inclusions			1 shot	1 / day	503967 Master Samples, visual	
10 insertion			1 shot	1 / day	410000 manual / visual	
11 slip back			1 shot	1 / day	410000 manual / visual	
12 pawl			1 shot	1 / day	420000 sample / visual	
22 brittleness fir-tree			1 shot	1 / day	80077 check gauge	
65 shot weight		see test procedure	1 shot	1 / day	20000 balance	
55 packaging inspection						VA13.1
157-00241 T50SOSFT6E3-PA66HIRHS-BK						

Control Plan

rev: 29.09.2017

○ Prototyp
○ Pre-Launch
◉ Production

PART NUMBER: 157-00241 GPN: 14-0904
PART NAME: T50SOSFT6E3-PA66HIRHS-BK
DRAWING : FU5T-14E047-LA
PRODUCT GROUP: B-00 PRODUCTION PLANT: HT Tornesch

CORE TEAM: PE, NTPM, QM, PR
KEY CONTACT PHONE: +49 4122 701 330
DATE REVIEWED: 01.07.2022
CUSTOMER APPROVAL:

Part / Prozess No / Characteristic	SC	Part / Prozess Specification / Tolerance	Sample Size	Frequenz	Evaluation / Measurement Technique Control Method	Reaction Plan
55 packaging inspection						VA13.1
157-00241 T50SOSFT6E3-PA66HIRHS-BK						
16 bag sealing			1 bag	1 / start off	410000 manual / visual	
17 label			1 bag	1 / start off	420000 sample / visual	
18 quantity			1 bag	1 / start off	430000 scale counter / manual	
45 mixed parts in pack unit			1 bag	1 / start off	410000 manual / visual	
100 annual layout						VA13.1
157-00241 T50SOSFT6E3-PA66HIRHS-BK						
1200 requalification / product audit acc. DRW-spec incl. packageing (1 part-No for mentioned part group)			1 shot	acc. AUDITPLAN		

HellermannTyton

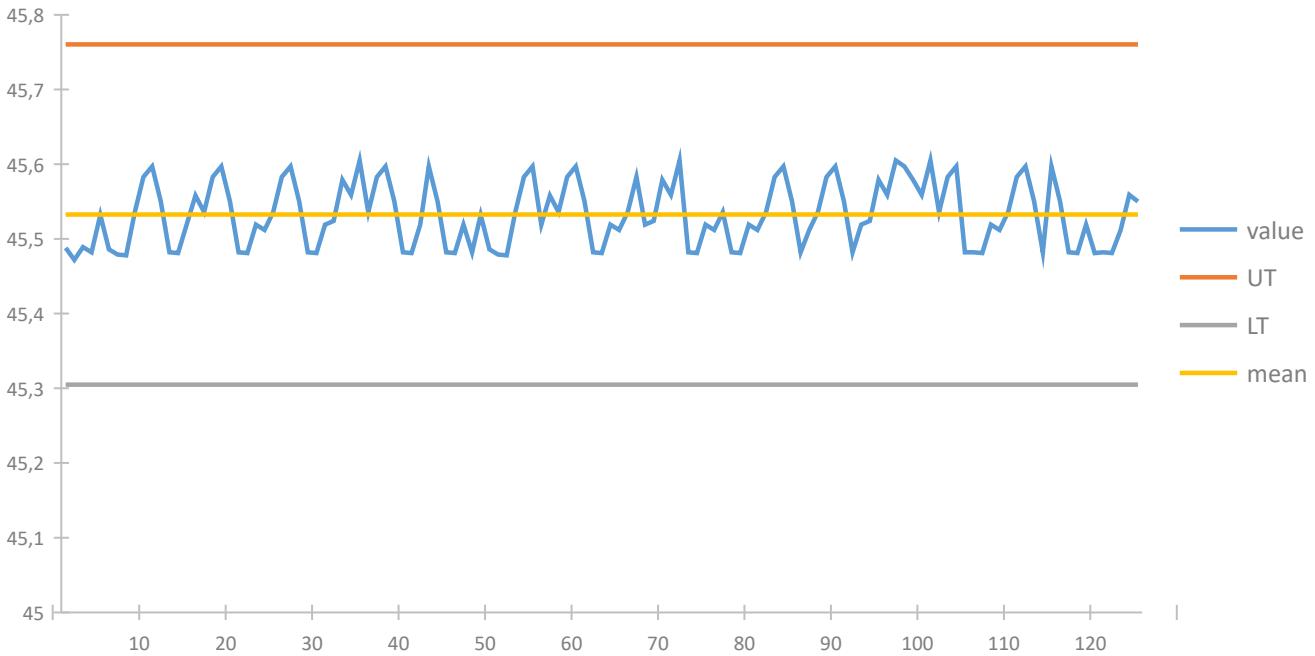
RPT: PPK_14-0904_002845

CAPABILITY STUDY

-shot weight-

06.08.2020

gpn:	14-0904				
part name:	T50SOSFT6E3-PA66HIRHS-BK			ppk:	1,78
spec (+/- [%])	0,500				
tolerance (+/- [g])	0,228			ppk spec (min):	1,67
min:	45,472	mean:	45,533		
max:	45,605	stddiv:	0,043		



data tab:

no	value															
1	45,488	17	45,536	33	45,579	49	45,532	65	45,512	81	45,512	97	45,605	113	45,550
2	45,472	18	45,583	34	45,559	50	45,486	66	45,536	82	45,536	98	45,597	114	45,482
3	45,489	19	45,597	35	45,605	51	45,479	67	45,583	83	45,583	99	45,579	115	45,597
4	45,482	20	45,550	36	45,536	52	45,478	68	45,519	84	45,597	100	45,559	116	45,550
5	45,532	21	45,482	37	45,583	53	45,536	69	45,524	85	45,550	101	45,605	117	45,482
6	45,486	22	45,481	38	45,597	54	45,583	70	45,579	86	45,482	102	45,536	118	45,481
7	45,479	23	45,519	39	45,550	55	45,597	71	45,559	87	45,512	103	45,583	119	45,519
8	45,478	24	45,512	40	45,482	56	45,519	72	45,605	88	45,536	104	45,597	120	45,481
9	45,536	25	45,536	41	45,481	57	45,558	73	45,482	89	45,583	105	45,482	121	45,482
10	45,583	26	45,583	42	45,519	58	45,536	74	45,481	90	45,597	106	45,482	122	45,481
11	45,597	27	45,597	43	45,597	59	45,583	75	45,519	91	45,550	107	45,481	123	45,512
12	45,550	28	45,550	44	45,550	60	45,597	76	45,512	92	45,482	108	45,519	124	45,559
13	45,482	29	45,482	45	45,482	61	45,550	77	45,536	93	45,519	109	45,512	125	45,550
14	45,481	30	45,481	46	45,481	62	45,482	78	45,482	94	45,524	110	45,536		
15	45,519	31	45,519	47	45,519	63	45,481	79	45,481	95	45,579	111	45,583		
16	45,558	32	45,524	48	45,482	64	45,519	80	45,519	96	45,559	112	45,597		

HellermannTyton

REPEATABILITY AND REPRODUCIBILITY ANALYSIS REPORT

acc. to MSA 4th Edition

NON DESTRUCTIVE TEST

Specimen :	Plastic reference part (GPN20-1304)	Gage type :	Weight scale	Plant :	Tornesch
Part. No. :	01021304	Gage number :	PMN 02-0111	Date :	31.01.2022
Characteristic :	Shot weight (±3,5‰)	performed by:		approved by:	
Tolerance :	0,064 Units gramm	Name:	Tobias Cohrt		Jens Feil
		Signature:			

# of operators:	3	# of trials:	3	# of parts:	10

OPERATOR	A:	Victir Salogin	B:	Stefan Specker	C:	Frank Werner

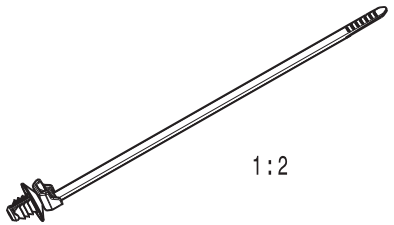
		P		A		R		T				RESULTS	
	TRIAL #	1	2	3	4	5	6	7	8	9	10		AVG
A	1	8,086	8,096	8,092	8,094	8,097	8,090	8,088	8,091	8,094	8,093	A_1	
	2	8,087	8,095	8,093	8,094	8,097	8,090	8,088	8,092	8,094	8,093	A_2	
	3	8,086	8,096	8,093	8,095	8,098	8,091	8,089	8,091	8,093	8,095	A_3	
Average		8,086	8,096	8,093	8,094	8,097	8,090	8,088	8,091	8,094	8,094	X_A	**8,0924**
Range		0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,001	0,002	R_A	**0,0011**
B	1	8,087	8,096	8,093	8,094	8,097	8,090	8,088	8,091	8,094	8,093	B_1	
	2	8,087	8,097	8,093	8,094	8,097	8,091	8,087	8,092	8,093	8,093	B_2	
	3	8,086	8,098	8,093	8,095	8,097	8,092	8,089	8,090	8,094	8,093	B_3	
Average		8,087	8,097	8,093	8,094	8,097	8,091	8,088	8,091	8,094	8,093	X_B	**8,0925**
Range		0,001	0,002	0,000	0,001	0,000	0,002	0,002	0,002	0,001	0,000	R_B	**0,0011**
C	1	8,087	8,097	8,092	8,095	8,097	8,091	8,089	8,091	8,093	8,093	C_1	
	2	8,086	8,098	8,095	8,095	8,096	8,091	8,089	8,091	8,094	8,094	C_2	
	3	8,088	8,097	8,093	8,094	8,097	8,090	8,088	8,092	8,095	8,093	C_3	
Average		8,087	8,097	8,093	8,095	8,097	8,091	8,089	8,091	8,094	8,093	X_C	**8,0927**
Range		0,002	0,001	0,003	0,001	0,001	0,001	0,001	0,001	0,002	0,001	R_C	**0,0014**
PART		8,0867	8,0967	8,0930	8,0944	8,0970	8,0907	8,0883	8,0912	8,0938	8,0933	R_{PART} =	0,0103

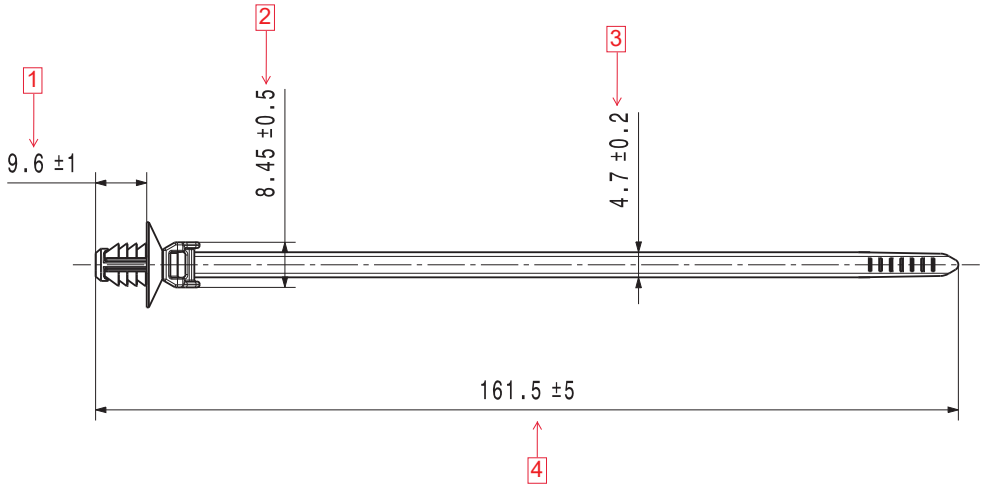
$R = R_A + R_B + R_C$ / No of operators	0,0011	+	0,0011	+	0,0014	/	3	R =	0,0012
X_{DIFF} = [Max $(X)_{ABC}$] - [Min $(X)_{ABC}$] =	8,0927	-	8,0924					X_{DIFF} =	0,0003
UCL_R = R * D_4 =	0,0012	*	2,58					UCL_R =	0,0031
D_4 = 3,27 for 2 trials	2,58	for 3 trials							

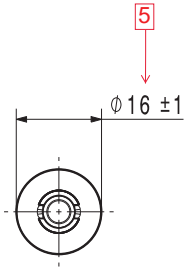
Measurement Unit Analysis			Total Variation Method	Tolerance Method
Repeatability : Equipment Variation (EV)				
EV = R * K_1	**Trials**	**K_1**	% EV = 100[EV/TV]	% EV = 100[EV/(tol/6)]
EV = 0,0007	3	0,5908	**% EV = 21,29**	**% EV = 6,65**
Reproducibility : Appraiser Variation (AV)	(n parts, r trials)			
AV = $[(X_{DIFF} * K_2)^2 - (EV^2 / nr)]^{1/2}$	**Oper**	**K_2**	% AV = 100[AV/TV]	% AV = 100[AV/(tol/6)]
AV = 0,0001	3	0,5231	**% AV = 3,51**	**% AV = 1,10**
Repeatability & Reproducibility (GRR)				
GRR = $(EV^2 + AV^2)^{1/2}$			%GRR=100[GRR/TV]	%GRR=100[GRR/(tol/6)]
GRR = 0,0007			**%GRR = 21,58**	**%GRR= 6,74**
Part Variation (PV)				
PV = $R_{PART} * K_3$	**Parts**	**K_3**	% PV = 100[PV/TV]	
PV = 0,0033	10	0,3146	**% PV = 97,64**	
Total Variation (TV)			**CONCLUSION:**	
TV = $(GRR^2 + PV^2)^{1/2}$				
TV = 0,0033				
Number of Distinct Categories (ndc)			**Gage system is satisfactory.**	
ndc = 1.41(PV / GRR)				
ndc = 6,37938				

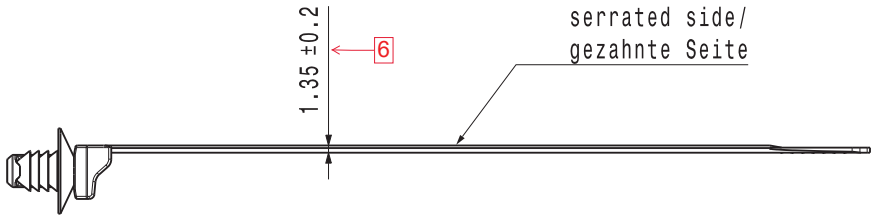
- Under 10% error	Gage system is satisfactory.
- 10% to 30% error	May be acceptable based upon importance of application, cost of gage, cost of repairs, etc.
- Over 30% error	Gage system is not satisfactory. Identify the causes and take corrective action.

Remarks:









Printed copy for information only/
Ausdruck nur zur Information

Specification:

- Performance requirements at equilibrium condition standard atmosphere 23 °C / 50% RH

11	- Material:	PA6.6 HIRHS
12	- Material color:	black
7	- Bundle Ø:	1 - 35 mm
8	- Tensile force:	150 N
9	- Hole size:	6,5 ±0,4 mm
10	- Panel thickness:	0,7 - 3,5 mm

The manufacturing-related geometry changes (injection point, ejectors marks, etc.) allowed. Design of the details are left to suppliers discretion.

Spezifikation:

- Leistungsanforderung im Gleichgewichtszustand Normalklima 23 °C / 50% RH

- Material:	PA6.6 HIRHS
- Material Farbe:	schwarz
- Buendel Ø:	1 - 35 mm
- Schlaufenhaltekraft:	150 N
- Loch Ø:	6,5 ±0,4 mm
- Blechdicke:	0,7 - 3,5 mm

Durch das Herstellverfahren bedingte Geometrieaenderungen (Anspritzung, Auswerfermarkierungen, etc.) zulaessig. Einzelheiten der Ausfuehrung bleiben dem Hersteller ueberlassen.

Revision Level			Revision Record
Drawing	State	Part	Drawing frame updated
01.4	Design Release	1.0	
Changed	Date (YYYY/MM/DD)		
C. Cordts	2022/06/07		
Approved	Date (YYYY/MM/DD)		
S. Maschmann	2022/06/07		

All drawing revisions are stored in CAD PDM database

Drawn	A. Hiller	Date (YYYY/MM/DD) 2016/04/14
Approved	S. Wulf	Date (YYYY/MM/DD) 2016/04/14

Units: mm

HellermannTyton
www.HellermannTyton.com

Title: T50SOSFT6-E3

Drawing-No: 14-0904-003-CSG

Scale: 1:1

Global Project Number: 14-0904

Format: A3

Sheet: 1 / 1