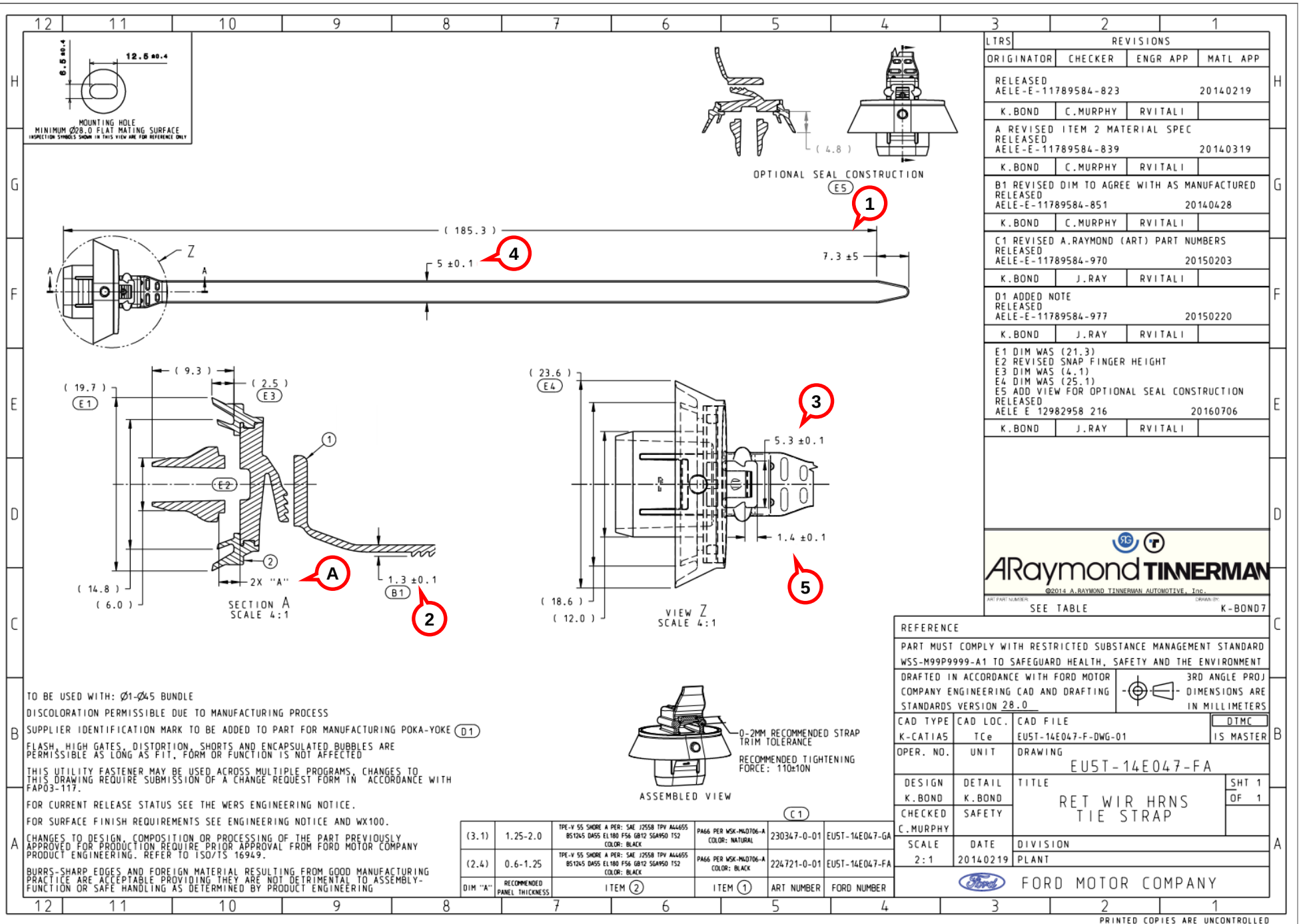


Part Submission Warrant

Part Name: <u>RET WIR HRNS TIE STRAPI</u>		Cust. Part Number: <u>EU5T-14E047-FA</u>	
Shown on Drawing No. <u>EU5T-14E047-FA</u>		Org. Part Number: <u>224721001</u>	
Engineering Change Level: <u>AELE E 12982958 216</u>		Dated: <u>06.07.2016</u>	
Additional Engineering Changes: _____		Dated: _____	
Safety and/or Government Regulation: ☐ Yes ☒ No		Purchase Order No. <u>N/A</u> Weight (kg): _____	
Checking Aid No: _____		Checking Aid Engineering Change Level _____ Dated: _____	
ORGANIZATION MANUFACTURING INFORMATION		CUSTOMER SUBMITTAL INFORMATION	
A.Raymond Jablonec s.r.o. <u>49-504-2616</u>		Nursan Elektrik Donanım San. ve Tic. A.Ş.	
Organization Name & Supplier/Vendor Code		Customer Name/Division	
<u>Čs.Armády 27</u>		Nadiye BARUTÇU	
Street Address		Buyer/Buyer Code	
<u>Jablonec nad Nisou 466 05 Czech republic</u>		Application	
City <u>Jablonec nad Nisou</u> Region <u>466 05</u> Postal Code <u>Czech republic</u>			
City <u>Jablonec nad Nisou</u> Region <u>466 05</u> Postal Code <u>Czech republic</u>			
MATERIALS REPORTING			
Has customer-required Substances of Concern information been reported?		☒ Yes ☐ No ☐ n/a	
Submitted by IMDS or other customer format:		<u>IMDS ID - 1366541701</u>	
Are polymeric parts identified with appropriate ISO marking codes?		☐ Yes ☐ No ☒ n/a	
REASON FOR SUBMISSION (Check at least one)			
☐ Initial Submission		☐ Change to optional Construction or Material	
☐ Engineering Change(s)		☐ Supplier or Material Source Change	
☒ Tooling: Transfer, Replacement, Refurbishment, or additional		☐ Change in part Processing	
☐ Correction of Discrepancy		☐ Parts Produced at Additional Location	
☐ Tooling Inactive > Than 1 year		☐ Other -please specify below	
		<u>new tool; cavities no: 81-96 A, 81-96B</u>	
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 Result 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 <u>400024200 / 16 / plastic injection</u>			
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 <u>19000 / 8 hours.</u>			
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.			
<u>A. Raymond considers the FMEA proprietary and our policy is not distribute it but make it available for review in our plant.</u>			
EXPLANATION/COMMENTS:			
Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☒ n/a			
Organization Authorized Signature <u>[Signature]</u>		Date <u>25.10.2024</u>	
Print Name <u>Bílková, Eva</u>		Phone No. _____ FAX No. _____	
Title <u>Quality engineer</u>		E-mail: <u>eva.bilkova@araymond.com</u>	
FOR CUSTOMER USE ONLY (IF APPLICABLE)			
PPAP Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other _____			
Customer Signature: _____		Date: _____	
Print Name: _____		Customer Tracking Number (optional): _____	



Appendix C - Production Part Approval, Dimensional Results

DAIMLERCHRYSLER



Production Part Approval Dimensional Test Results

ARaymond

A. RAYMOND JABLONEC s.r.o.

ORGANIZATION: A.Raymond Jablonec s.r.o. SUPPLIER/VENDOR CODE: 49-504-2616 ARAYMOND PART NO.: 224721001						PART NUMBER: EU5T-14E047-FA PART NAME: RET WIR HRNS TIE STRAPI DESIGN RECORD CHANGE LEVEL: AELE E 12982958 216 ENGINEERING CHANGE DOCUMENTS: 6.7.2016		
INSPECTION FACILITY: TW - Torque Wrench OS - 3D Optical Scanner 3D - 3D Measuring Machine GP - Gauge Plug OP - Optical Projector C - Calliper M - Micrometer TM - Tensile Machine DI - Dial Indicator PP - Profile Projector HA - Halogen moisture analyzer								
ITEM	DIMENSION / SPECIFICATION	SPECIFICATION / LIMITS	INS. FACIL.	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULT (DATA) (cavity no. 1, cavity no. 2, cavity no. 3 ...)	OK	NOT OK
01A /	Length	7,30 ±5,00 mm	C	25.10.2024	16	7,32; 7,40; 7,42; 7,37; 7,50; 7,34; 7,28; 7,32; 7,30; 7,35; 7,41; 7,38; 7,46; 7,46; 7,28; 7,40	☒	☐
01B /	Length	7,30 ±5,00 mm	C	25.10.2024	16	7,35; 7,37; 7,42; 7,29; 7,27; 7,50; 7,34; 7,30; 7,28; 7,32; 7,35; 7,50; 7,41; 7,38; 7,46; 7,40	☒	☐
02A /	Length	1,30 ±0,10 mm	C	25.10.2024	16	1,31; 1,34; 1,32; 1,31; 1,30; 1,32; 1,33; 1,32; 1,34; 1,32; 1,29; 1,32; 1,34; 1,32; 1,31; 1,33	☒	☐
02B /	Length	1,30 ±0,10 mm	C	25.10.2024	16	1,34; 1,31; 1,32; 1,34; 1,32; 1,29; 1,32; 1,34; 1,33; 1,32; 1,32; 1,30; 1,31; 1,32; 1,31; 1,34	☒	☐
03A /	Length	5,30 ±0,10 mm	C	25.10.2024	16	5,34; 5,36; 5,35; 5,33; 5,34; 5,38; 5,36; 5,32; 5,34; 5,35; 5,38; 5,32; 5,35; 5,36; 5,31; 5,34	☒	☐
03B /	Length	5,30 ±0,10 mm	C	25.10.2024	16	5,32; 5,36; 5,36; 5,37; 5,34; 5,35; 5,38; 5,38; 5,36; 5,31; 5,36; 5,32; 5,35; 5,34; 5,36; 5,34	☒	☐
04A /	Length	5,00 ±0,10 mm	C	25.10.2024	16	5,01; 5,00; 5,01; 5,03; 5,02; 5,01; 5,00; 5,02; 5,01; 5,00; 5,03; 5,02; 5,00; 5,01; 5,01; 5,02	☒	☐
04B /	Length	5,00 ±0,10 mm	C	25.10.2024	16	5,03; 5,02; 5,01; 5,02; 5,00; 5,02; 5,00; 5,00; 5,00; 5,02; 5,02; 5,02; 5,02; 5,01; 5,00; 5,01	☒	☐
05A /	Length	1,40 ±0,10 mm	OP	25.10.2024	16	1,45; 1,40; 1,45; 1,41; 1,39; 1,36; 1,39; 1,40; 1,42; 1,38; 1,45; 1,40; 1,43; 1,38; 1,42; 1,40	☒	☐
05B /	Length	1,40 ±0,10 mm	OP	25.10.2024	16	1,35; 1,43; 1,45; 1,38; 1,42; 1,40; 1,40; 1,36; 1,39; 1,36; 1,40; 1,39; 1,45; 1,40; 1,41; 1,45	☒	☐

Blanket statements of conformance are unacceptable for any test results.

March
2006

CFG-1003

SIGNATURE

TITLE

DATE

Bílková, Eva

25.10.2024

Appendix D+E - Production Part Approval, Material and Performance Test Results



DAIMLERCHRYSLER



Production Part Approval Material
and Performance Test Results

A. RAYMOND JABLONEC s.r.o.

ORGANIZATION: A.Raymond Jablonec s.r.o.						PART NUMBER: EU5T-14E047-FA		
SUPPLIER/VENDOR CODE: 49-504-2616						PART NAME: RET WIR HRNS TIE STRAPI		
ARAYMOND PART NO.: 224721001						DESIGN RECORD CHANGE LEVEL: AELE E 12982958 216		
INSPECTION FACILITY: TW - Torque Wrench OS - 3D Optical Scanner 3D - 3D Measuring Machine GP - Gauge Plug OP - Optical Projector C - Calliper M - Micrometer TM - Tensile Machine DI - Dial Indicator PP - Profile Projector HA - Halogen moisture analyzer						ENGINEERING CHANGE DOCUMENTS: 6.7.2016		
ITEM	DIMENSION / SPECIFICATION	SPECIFICATION / LIMITS	INS. FACIL.	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULT (DATA)	OK	NOT OK
06A /	Function	Recommended tightening force 110 ±10N		25.10.2024	16	OK	☒	☐
06B /	Function	Recommended tightening force 110 ±10N		25.10.2024	16	OK	☒	☐
07A /	Function	Push in force		25.10.2024	16	30,82-39,76 N	☒	☐
07B /	Function	Push in force		25.10.2024	16	30,12-39,94 N	☒	☐
08A /	Function	Push out force		25.10.2024	16	203-225 N	☒	☐
08B /	Function	Push out force		25.10.2024	16	194-228 N	☒	☐
10A /	Function	Waterproof test		25.10.2024	16	OK	☒	☐
10B /	Function	Waterproof test		25.10.2024	16	OK	☒	☐
11A /	Appearance	Flash, high gates, distortion, shorts and encapsulated bubbles are permissible		25.10.2024	16	OK	☒	☐
11B /	Appearance	Flash, high gates, distortion, shorts and encapsulated bubbles are permissible		25.10.2024	16	OK	☒	☐
12A /	Material strap	PA66		25.10.2024	16	OK	☒	☐
12B /	Material strap	PA66		25.10.2024	16	OK	☒	☐
13A /	Material seal	TPE-V55		25.10.2024	16	OK	☒	☐
13B /	Material seal	TPE-V55		25.10.2024	16	OK	☒	☐
14A /	Color of strap	black		25.10.2024	16	OK	☒	☐
14B /	Color of strap	black		25.10.2024	16	OK	☒	☐
15A /	Color of seal	black		25.10.2024	16	OK	☒	☐

Blanket statements of conformance are unacceptable for any test results.

March
2006

CFG-1003

SIGNATURE

TITLE

DATE

Bílková, Eva

25.10.2024

Appendix D+E - Production Part Approval, Material and Performance Test Results



DAIMLERCHRYSLER



Production Part Approval Material
and Performance Test Results

A. RAYMOND JABLONEC s.r.o.

ORGANIZATION: A.Raymond Jablonec s.r.o. SUPPLIER/VENDOR CODE: 49-504-2616 ARAYMOND PART NO.: 224721001						PART NUMBER: EU5T-14E047-FA PART NAME: RET WIR HRNS TIE STRAPI DESIGN RECORD CHANGE LEVEL: AELE E 12982958 216 ENGINEERING CHANGE DOCUMENTS: 6.7.2016		
INSPECTION FACILITY: TW - Torque Wrench OS - 3D Optical Scanner 3D - 3D Measuring Machine GP - Gauge Plug OP - Optical Projector C - Calliper M - Micrometer TM - Tensile Machine DI - Dial Indicator PP - Profile Projector HA - Halogen moisture analyzer								
ITEM	DIMENSION / SPECIFICATION	SPECIFICATION / LIMITS	INS. FACIL.	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULT (DATA)	OK	NOT OK
15B /	Color of seal	black		25.10.2024	16	OK	☒	☐

Blanket statements of conformance are unacceptable for any test results.

March
2006

CFG-1003

SIGNATURE

TITLE

DATE

Bílková, Eva

25.10.2024

**RTP Polska Sp. Z.O.O.**

ul. Ryszarda Chomicza 13 G
55-080 Nowa Wies Wroclawska

Telephone: 71 748 36 00

**Certificate Of
Analysis****CA-0001051****CUSTOMER INFORMATION**

STRECK TRANSPORTE GMBH

CUSTOMER NUMBER	ORDER NUMBER	CERTIFICATION DATE
100934	A14051	18/12/23
CUSTOMER ITEM NUMBER		
TPE-609155ABK		

THIS IS TO CERTIFY THAT THE PRODUCT LISTED
BELOW CONFORMS TO ALL BATCH ACCEPTANCE
REQUIREMENTS.

Batch number	Description	Customer order number
62303215P	Nylabond® 6091-55A BLACK	628629

NYLABOND® is a registered trademark of RTP Company

Property	Unit	Test result	Min	Max
Elastomer Tensile Strength	MPa	2,79	2,00	
Elastomer Tensile Elongation	%	257,96	180,00	
Stress @ 100% Elongation	MPa	1,38	1,20	2,20
Shore A Hardness	A	54	54	60
Specific Gravity	-	0,940	0,930	0,970
LCR Viscosity @ 1200/s	Pa-s	72		100

**To:**

A. RAYMOND JABLONEC S.R.O.
CS. ARMADY 27/4609
466 05 JABLONEC NAD NISOU
CZECH REPUBLIC

EM Certification Department
Celanese Corporation
222 W Las Colinas Blvd,
Irving, TX 75039

Inspection Certificate EN 10204-3.1

ZYTEL(R) MT409AHS BK010 25 KG BAG NYLON RESIN

Customer No.:	1050061	Cert Issue Date:	02 Sep 2024
Material No.:	27048647	Qty Shipped:	14,625.000 KG
Customer Material:	505002571	Order Item:	3012545 10
Produced on:	07 Jun 2024	Delivery item/date:	89810885 900002 / 17 Sep 2024
		Customer PO No.:	4501258573

Batch 0002020370

On the batch, of which the consignment is a part, the following values were determined.

Characteristic	Method	UoM	Value	Limits
Water Content	(DIN ISO 15512)	%(m)	0.04	max. 0.18
Melt Viscosity	ISO 11443	Pascal sec	74	40 - 120

NYLON Global Business Line

A.RAYMOND JABLONEC s.r.o.						MSA (GRR method)					
Part Number 175034001					Gage Name Posuvka digitální- caliper			Appraiser A Halbych, Ondrej			
Part Name Hose clip					Gage Number A 122			Appraiser B Knajfl Patrik			
Characteristic	DT 11,5	JR 12	HT 12,5	Tolerance +/- 0,5	Gage Type typ 500-181-30			Appraiser C Bradáč Petr			
Classification length			Units mm	Result Measurement system passed			Parts 10	Appraisers 3	Date 03.01.2024		

APPRaiser TRIAL	PART										AVERAGE	
	1	2	3	4	5	6	7	8	9	10		
A	1	11,56	12	12,1	12,32	12,13	11,66	11,78	12,03	12,36	12,12	12,006
	2	11,56	12,01	12,11	12,32	12,14	11,67	11,78	12,02	12,36	12,12	12,009
	3	11,57	12,01	12,11	12,31	12,14	11,37	11,76	12,03	12,35	12,11	11,976
	AVE	11,5633	12,0067	12,1067	12,3167	12,1367	11,5667	11,7733	12,0267	12,3567	12,1167	Xa = 11,997
	R	0,01	0,01	0,01	0,01	0,01	0,3	0,02	0,01	0,01	0,01	Ra = 0,04
PART AVERAGE		11,5689	12,0078	12,1044	12,3144	12,1356	11,6333	11,7744	12,0244	12,3556	12,1156	X" = 12,0034Rp = 0,7867
B	1	11,57	12	12,1	12,31	12,13	11,67	11,77	12,02	12,36	12,11	12,004
	2	11,57	12,01	12,1	12,31	12,13	11,66	11,77	12,02	12,35	12,12	12,004
	3	11,57	12,01	12,11	12,32	12,13	11,66	11,78	12,03	12,36	12,12	12,009
	AVE	11,57	12,0067	12,1033	12,3133	12,13	11,6633	11,7733	12,0233	12,3567	12,1167	Xb = 12,0057
	R	0	0,01	0,01	0,01	0	0,01	0,01	0,01	0,01	0,01	Rb = 0,008
PART AVERAGE		11,5689	12,0078	12,1044	12,3144	12,1356	11,6333	11,7744	12,0244	12,3556	12,1156	X" = 12,0034Rp = 0,7867
C	1	11,56	12,01	12,11	12,32	12,14	11,67	11,78	12,02	12,35	12,11	12,007
	2	11,58	12,01	12,1	12,31	12,14	11,68	11,77	12,02	12,36	12,11	12,008
	3	11,58	12,01	12,1	12,31	12,14	11,66	11,78	12,03	12,35	12,12	12,008
	AVE	11,5733	12,01	12,1033	12,3133	12,14	11,67	11,7767	12,0233	12,3533	12,1133	Xc = 12,0077
	R	0,02	0	0,01	0,01	0	0,02	0,01	0,01	0,01	0,01	Rc = 0,01
PART AVERAGE		11,5689	12,0078	12,1044	12,3144	12,1356	11,6333	11,7744	12,0244	12,3556	12,1156	X" = 12,0034Rp = 0,7867
([Ra = 0,04] + [Rb = 0,008] + [Rc = 0,01]) / [Count Appraiser = 3] =												
[Max X = 12,360] - [Min X = 11,37] = Xdiff = 0,011												
* [R" = 0,019] x [D4 = 2,574] = UCLr = 0												
Repeatability - Equipment Variation (EV) $EV = \bar{R} * K_1$ $EV = 0,019 * 0,591$ $= 0,011$							%EV = TV = 100 [0,011/0,248] = 4,61 %					
Reproducibility - Appraiser Variation (AV) $AV = \sqrt{(\bar{X}_{DIFF} * K_2)^2 - \left(\frac{EV^2}{n * r}\right)}$ $AV = \sqrt{(0,011 * 0,523)^2 - \left(\frac{0,011^2}{10 * 3}\right)}$ $= 0,005$ n = díly r = měření							%AV = TV = 100 [0,005/0,248] = 2,09 %					
Repeatability & Reproducibility (GRR) $GRR = \sqrt{EV^2 + AV^2}$ $GRR = \sqrt{0,011^2 + 0,005^2}$ $= 0,013$							%GRR = TV = 100 [0,013/0,248] = 5,06 %					
Part Variation (PV) $PV = R_P * K_3$ $PV = 0,787 * 0,315$ $= 0,247$							%PV = TV = 100 [0,247/0,248] = 99,87 %					
Tolerance (TV) $TV = \sqrt{GRR^2 + PV^2}$ $TV = \sqrt{0,013^2 + 0,247^2}$ $= 0,248$							ndc = 1.41[PV/GRR] = 1.41 [0,247/0,013] = 27,827 ~ 27					
Notes: Notes: This analysis could be use as a representative for the similar group of parts ☒ yes <i>for X</i>												

A.RAYMOND JABLONEC s.r.o.						MSA (GRR method)					
Part Number 016360000					Gage Name Digital optical profilprojector -			Appraiser A Halbych, Ondrej			
Part Name Swivel clip					Gage Number I 005			Appraiser B Janoušek Milan			
Characteristic	DT 6,05	JR 6,3	HT 6,55	Tolerance +/- 0,25	Gage Type Vision Swift PRO Duo			Appraiser C Kobr Tomáš			
Classification diameter			Units mm	Result Measurement system passed			Parts 10	Appraisers 3	Date 04.01.2024		

APPRaiser TRIAL	PART										AVERAGE	
	1	2	3	4	5	6	7	8	9	10		
A	1	6,099	6,193	6,388	6,452	6,395	6,287	6,511	6,124	6,34	6,299	6,3088
	2	6,102	6,193	6,388	6,452	6,395	6,288	6,511	6,125	6,34	6,299	6,3093
	3	6,102	6,194	6,389	6,454	6,395	6,288	6,512	6,124	6,341	6,299	6,3098
	AVE	6,101	6,1933	6,3883	6,4527	6,395	6,2877	6,5113	6,1243	6,3403	6,299	Xa = 6,3093
	R	0,003	0,001	0,001	0,002	0	0,001	0,001	0,001	0,001	0	Ra = 0,0011
PART AVERAGE		6,1002	6,1928	6,3886	6,4529	6,3944	6,2876	6,5116	6,1244	6,3406	6,2981	X" = 6,3091Rp = 0,4113
B	1	6,101	6,194	6,389	6,454	6,394	6,287	6,512	6,125	6,341	6,298	6,3095
	2	6,101	6,193	6,389	6,454	6,394	6,288	6,512	6,124	6,34	6,298	6,3093
	3	6,102	6,193	6,388	6,454	6,394	6,287	6,511	6,124	6,34	6,298	6,3091
	AVE	6,1013	6,1933	6,3887	6,454	6,394	6,2873	6,5117	6,1243	6,3403	6,298	Xb = 6,3093
	R	0,001	0,001	0,001	0	0	0,001	0,001	0,001	0,001	0	Rb = 0,0007
PART AVERAGE		6,1002	6,1928	6,3886	6,4529	6,3944	6,2876	6,5116	6,1244	6,3406	6,2981	X" = 6,3091Rp = 0,4113
C	1	6,098	6,189	6,388	6,452	6,395	6,288	6,512	6,124	6,341	6,298	6,3085
	2	6,098	6,193	6,389	6,452	6,394	6,288	6,512	6,125	6,341	6,297	6,3089
	3	6,099	6,193	6,389	6,452	6,394	6,287	6,511	6,125	6,341	6,297	6,3088
	AVE	6,0983	6,1917	6,3887	6,452	6,3943	6,2877	6,5117	6,1247	6,341	6,2973	Xc = 6,3087
	R	0,001	0,004	0,001	0	0,001	0,001	0,001	0,001	0	0,001	Rc = 0,0011
PART AVERAGE		6,1002	6,1928	6,3886	6,4529	6,3944	6,2876	6,5116	6,1244	6,3406	6,2981	X" = 6,3091Rp = 0,4113
([Ra = 0,0011] + [Rb = 0,0007] + [Rc = 0,0011]) / [Count Appraiser = 3] = R" = 0,00097												
[Max X = 6,512] - [Min X = 6,098] = Xdiff = 0,001												
* [R" = 0,001] x [D4 = 2,574] = UCLr = 0												

Repeatability - Equipment Variation (EV) $EV = \bar{\bar{R}} + K_1$ $EV = 0,001 * 0,591$ $= 0,001$				<table border="1" style="width: 100%;"> <tr><th>Trials</th><th>K1</th></tr> <tr><td>2</td><td>0,8862</td></tr> <tr><td>3</td><td>0,5908</td></tr> </table>	Trials	K1	2	0,8862	3	0,5908	%EV = TV = 100 [0,001/0,129] = 0,44 %														
Trials	K1																								
2	0,8862																								
3	0,5908																								
Reproducibility - Appraiser Variation (AV) $AV = \sqrt{(\bar{X}_{DIFF} * K_2)^2 - \left(\frac{EV^2}{n * r}\right)}$ $AV = \sqrt{(0,001 * 0,523)^2 - \left(\frac{0,001^2}{10 * 3}\right)}$ $= 0,000$ n = díly r = měření				<table border="1" style="width: 100%;"> <tr><th>Appraisers</th><th>2</th><th>3</th></tr> <tr><td>K2</td><td>0,7071</td><td>0,5231</td></tr> </table>	Appraisers	2	3	K2	0,7071	0,5231	%AV = TV = 100 [2,775E-4/0,129] = 0,21 %														
Appraisers	2	3																							
K2	0,7071	0,5231																							
Repeatability & Reproducibility (GRR) $GRR = \sqrt{EV^2 + AV^2}$ $GRR = \sqrt{0,001^2 + 2,775E-4^2}$ $= 0,001$				<table border="1" style="width: 100%;"> <tr><th>Parts</th><th>K3</th></tr> <tr><td>2</td><td>0,7071</td></tr> <tr><td>3</td><td>0,5231</td></tr> <tr><td>4</td><td>0,4467</td></tr> <tr><td>5</td><td>0,4030</td></tr> <tr><td>6</td><td>0,3742</td></tr> <tr><td>7</td><td>0,3534</td></tr> <tr><td>8</td><td>0,3375</td></tr> <tr><td>9</td><td>0,3249</td></tr> <tr><td>10</td><td>0,3146</td></tr> </table>	Parts	K3	2	0,7071	3	0,5231	4	0,4467	5	0,4030	6	0,3742	7	0,3534	8	0,3375	9	0,3249	10	0,3146	%GRR = TV = 100 [0,001/0,129] = 0,49 %
Parts	K3																								
2	0,7071																								
3	0,5231																								
4	0,4467																								
5	0,4030																								
6	0,3742																								
7	0,3534																								
8	0,3375																								
9	0,3249																								
10	0,3146																								
Part Variation (PV) $PV = R_P * K_3$ $PV = 0,411 * 0,315$ $= 0,129$					%PV = TV = 100 [0,129/0,129] = 100,00 %																				
Tolerance (TV) $TV = \sqrt{GRR^2 + PV^2}$ $TV = \sqrt{0,001^2 + 0,129^2}$ $= 0,129$					ndc = 1.41[PV/GRR] = 1.41 [0,129/0,001] = 287,365 ~ 287																				

Notes:	Notes: This analysis could be use as a representative for the similar group of parts ☒ yes <i>Jan X</i>
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EA MLA Signatory
Český institut pro akreditaci, o.p.s.
Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

CERTIFICATE OF ACCREDITATION

No. 366/2023

PRIMA BILAVČÍK, s.r.o.
with registered office 9. května 1182, 688 01 Uherský Brod,
Company Registration No. 26227631

for the Calibration Laboratory No. 2318
Calibration Laboratory

Scope of accreditation:

Calibration in the field of length, plane angle, mass, force, pressure, temperature, electrical quantities, time quantities and frequency, physicochemical quantities to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

ČSN EN ISO/IEC 17025:2018

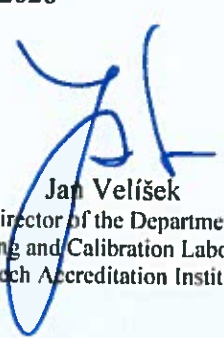
In its activities performed within the scope and for the period of validity of this Certificate, the Conformity Assessment Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 251/2022 of 26. 5. 2022, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **1. 12. 2026**

Prague: 10. 7. 2023




Jan Velíšek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute

A.RAYMOND JABLONEC s.r.o.						MSA (GRR method)					
Part Number 222851001					Gage Name Váha - scale			Appraiser A Kobr Tomáš			
Part Name Cursor front right					Gage Number F 048			Appraiser B Janoušek Milan			
Characteristic	DT 37,279	JR 38,04	HT 38,801	Tolerance 1,522	Gage Type Sartorius LA620 S			Appraiser C Knajfl Patrik			
Classification weight			Units g	Result Measurement system passed			Parts 10	Appraisers 3	Date 03.01.2024		

APPRaiser TRIAL	PART										AVERAGE	
	1	2	3	4	5	6	7	8	9	10		
A	1	38,399	38,289	38,499	38,336	38,369	38,531	38,452	38,349	38,349	38,434	38,4007
	2	38,399	38,289	38,499	38,336	38,369	38,531	38,452	38,349	38,35	38,434	38,4008
	3	38,398	38,289	38,45	38,336	38,369	38,532	38,453	38,438	38,35	38,434	38,4049
	AVE	38,3987	38,289	38,4827	38,336	38,369	38,5313	38,4523	38,3787	38,3497	38,434	Xa = 38,4021
	R	0,001	0	0,049	0	0	0,001	0,001	0,089	0,001	0	Ra = 0,0142
PART AVERAGE		38,3988	38,2912	38,4881	38,3358	38,3691	38,5313	38,4614	38,3586	38,3501	38,4352	X" = 38,402Rp = 0,2401
B	1	38,399	38,299	38,45	38,335	38,369	38,532	38,451	38,348	38,35	38,436	38,3969
	2	38,398	38,289	38,499	38,335	38,369	38,531	38,451	38,349	38,35	38,436	38,4007
	3	38,398	38,289	38,499	38,336	38,369	38,531	38,451	38,348	38,35	38,436	38,4007
	AVE	38,3983	38,2923	38,4827	38,3353	38,369	38,5313	38,451	38,3483	38,35	38,436	Xb = 38,3994
	R	0,001	0,01	0,049	0,001	0	0,001	0	0,001	0	0	Rb = 0,0063
PART AVERAGE		38,3988	38,2912	38,4881	38,3358	38,3691	38,5313	38,4614	38,3586	38,3501	38,4352	X" = 38,402Rp = 0,2401
C	1	38,399	38,299	38,499	38,336	38,369	38,531	38,451	38,349	38,351	38,435	38,4019
	2	38,4	38,289	38,499	38,336	38,369	38,532	38,451	38,349	38,351	38,436	38,4012
	3	38,399	38,289	38,499	38,336	38,37	38,531	38,541	38,348	38,35	38,436	38,4099
	AVE	38,3993	38,2923	38,499	38,336	38,3693	38,5313	38,481	38,3487	38,3507	38,4357	Xc = 38,4043
	R	0,001	0,01	0	0	0,001	0,001	0,09	0,001	0,001	0,001	Rc = 0,0106
PART AVERAGE		38,3988	38,2912	38,4881	38,3358	38,3691	38,5313	38,4614	38,3586	38,3501	38,4352	X" = 38,402Rp = 0,2401
([Ra = 0,0142] + [Rb = 0,0063] + [Rc = 0,0106]) / [Count Appraiser = 3] = R" = 0,01037												
[Max X = 38,541] - [Min X = 38,28] = Xdiff = 0,005 9												
* [R" = 0,010] x [D4 = 2,574] = UCLr = 0												

Repeatability - Equipment Variation (EV)				%EV = TV = 100 [0,006/0,076] = 8,08 %			
$EV = \bar{R} * K_1$ $EV = 0,010 * 0,591$ $= 0,006$		Trials				K1	
		2				0,8862	
		3				0,5908	
Reproducibility - Appraiser Variation (AV)				%AV = TV = 100 [0,002/0,076] = 3,04 %			
$AV = \sqrt{(\bar{X}_{DIFF} * K_2)^2 - \left(\frac{EV^2}{n * r}\right)}$ $AV = \sqrt{(0,005 * 0,523)^2 - \left(\frac{0,006^2}{10 * 3}\right)}$ $= 0,002$ n = dily r = měření		Appraisers				2	3
		K2				0,7071	0,5231
Repeatability & Reproducibility (GRR)				%GRR = TV = 100 [0,007/0,076] = 8,63 %			
$GRR = \sqrt{EV^2 + AV^2}$ $GRR = \sqrt{0,006^2 + 0,002^2}$ $= 0,007$		Parts				K3	
		2				0,7071	
		3				0,5231	
Part Variation (PV)				%PV = TV = 100 [0,076/0,076] = 99,63 %			
$PV = R_P * K_3$ $PV = 0,240 * 0,315$ $= 0,076$		4				0,4467	
		5				0,4030	
		6				0,3742	
		7		0,3534			
Tolerance (TV)				ndc = 1.41[PV/GRR] = 1.41 [0,076/0,007] = 16,275 ~ 16			
$TV = \sqrt{GRR^2 + PV^2}$ $TV = \sqrt{0,007^2 + 0,076^2}$ $= 0,076$		8				0,3375	
		9				0,3249	
		10				0,3146	

Notes:	Notes: This analysis could be use as a representative for the similar group of parts ☒ yes <i>Jan</i>
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X Série/Production		KONTROLNÍ PLÁN / CONTROL PLAN							Pozn. / Remark:		
ARaymond MORE THAN FASTENING		Díl / Part: 224721001		Index změny / Change Level: Fb / 19.01.2016		Název / Name: Tie-strap & seal - retainer oval		Číslo zákazníka / CustPart:		Zákazník / Customer:	
		Znak / Characteristic				Metoda / Method					
Číslo	Proces / Diagram procesu	Číslo	Popis	KI	Specifikace	Způsob kontroly	Rozsah	Četnost	Metoda kontroly	Plán reakce	
No.	Process / Flow-Chart	No.	Description	CI	Characteristics	Evaluation	Size	Frequency	Control Method	Reaction Plan	
1	Příjem základního materiálu Receipt of raw material		Dodací list Delivery note		Shoda s dokumentací According to contract	Vizuálně Visual	1	Šarže Charge	TOP 06-01-96 ; TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97	
		1	Množství Quantity		Shoda s objednávkou According to order	Vizuálně Visual	1	Šarže Charge	TOP 06-01-96 ; TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97	
		2	Kontrola hodnot uvedených na atestu Check of values mentioned on material atest		Hodnoty dle specifikace Results acc. to specification	Administrativní kontrola Administrative check	1	Šarže Charge	TOP 06-01-96 ; TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97	
		3	Kontrola balení Packaging		Bez porušení No damage	Vizuálně Visual	1	Šarže Charge	TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97	
2	Zaskladnění Storage		Příjem materiálu na hlavní sklad Material storage		Mat. označen žlutým štítkem Mat. marked by yellow label	Vizuálně Visual	1	Paleta Palette	TOP 15-01-96	TOP 13-01-96 ; TOP 19-01-97	
3	Příprava základního materiálu Raw material preparation		Druh a typ základního materiálu, použití vtoků Type of raw material, using of sprues		Shoda s dokumentací According to instruction	Vizuálně Visual	1	Paleta Palette	PP 09-14-99 ; PP 09-15-99	TOP 13-01-96 ; TOP 19-01-97	
		1	Množství Quantity		Shoda s objednávkou According to order	Vizálně Visual	1	Paleta Palette	PP 09-14-99 ; PP 09-15-99	PP 09-14-99 ; PP 09-15-99	
4	Sušení granulátu Granulate drying		Teplota a čas sušení Temperature and time of drying		Shoda s objednávkou According to order	Vizuálně Visual	1	Zakázka Order	PP 09-14-99 ; PP 09-15-99	PP 09-14-99 ; PP 09-15-99	
5	Vstřikování Injection moulding		Nasazení formy a seřízení lisu Preparation of mould and machine		Vstřikovací parametry dle SL Acc. to set-up card	Porovnáním nastavených hodnot a SL Review of set-up card and machine settings		Každé seřízení Each set-up	PP 09-01-96	TOP 13-01-96 ; TOP 19-01-97	
6	Kontrola 1.zdvihu Production approval		Kontrola 1.zdvihu Production approval		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Zakázka Order	PP 09-01-96	Přeseřdit nastavení vstřík. lisu Adjust machine setting	
		1	Vizuální kontrola Visual check		Kontrola dle Q-výkresu Check acc. to Q-drawing	Vizuálně Visual	1 zdvih 1 stroke	Zakázka Order	PP 09-01-96 ; Q-výkres	Přeseřdit nastavení vstřík. lisu Adjust machine setting	
		2	Zkoušky dle Q-výkresu Check acc. Q-drawing		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Zakázka Order	PP 09-01-96 ; Q-výkres	Přeseřdit nastavení vstřík. lisu Adjust machine setting	
		3	Hmotnost zdvihu - SPC Weigth of stroke - SPC		Dodržení regulačních mezí Cp, Cpk > 1,67	Vážení weighing	3 zdvihy 3 strokes	Zakázka Order	PP 09-01-96 ; Q-výkres	Přeseřdit nastavení vstřík. lisu Adjust machine setting	

X Série/Production		KONTROLNÍ PLÁN / CONTROL PLAN							Pozn. / Remark:	
		Díl / Part: 224721001		Index změny / Change Level: Fb / 19.01.2016	Název / Name: Tie-strap & seal - retainer oval	Číslo zákazníka / CustPart:		Zákazník / Customer:		
		Znak / Characteristic			Metoda / Method					
Číslo	Proces / Diagram procesu	Číslo	Popis	KI	Specifikace	Způsob kontroly	Rozsah	Četnost	Metoda kontroly	Plán reakce
No.	Process / Flow-Chart	No.	Description	CI	Characteristics	Evaluation	Size	Frequency	Control Method	Reaction Plan
7			Průběžná kontrola Production approval		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Po 2 hod. Every 2 hours	PP 09-02-96	Informovat seřizovače Notify adjuster
		1	Vizuální kontrola Visual check		Kontrola dle Q-výkresu Check acc. to Q-drawing	Vizuálně Visual	1 zdvih 1 stroke	Po 2 hod. Every 2 hours	PP 09-02-96 ; Q-výkres	Informovat seřizovače Notify adjuster
		2	Zkoušky dle Q-výkresu Check acc. Q-drawing		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Po 2 hod. Every 2 hours	PP 09-02-96 ; Q-výkres	Informovat seřizovače Notify adjuster
		3	Hmotnost zdvihu - SPC Weigh of stroke - SPC		Dodržení regulačních mezí ; Cp, Cpk > 1,67	Vážení weighing	3 zdvihy 3 strokes	Po 2 hod. Every 2 hours	PP 09-02-96 ; Q-výkres	Informovat seřizovače Notify adjuster
8			Kontrola posledního zdvihu Check of last stroke		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Dávka Batch	TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97
		1	Vizuální kontrola Visual check		Kontrola dle Q-výkresu Check acc. to Q-drawing	Vizuálně Visual	1 zdvih 1 stroke	Dávka Batch	TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97
		2	Zkoušky dle Q-výkresu Check acc. Q-drawing		Kontrola dle Q-výkresu Check acc. to Q-drawing	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	Dávka Batch	TOP 10-01-96	TOP 13-01-96 ; TOP 19-01-97
9			Rekvalifikace na zástupce Layout inspection and fucntional testing for representative		Rozměry a fce dle PPAP výkresu Dimensions and fucntional testing acc. to PPAP dwg	Měření, funkční test Measuring, function test	1 zdvih 1 stroke	1 ročně annually	TOP 17-04-03	TOP 17-04-03 ; TOP 13-01-96
10			Hmotnost dílu Weight of part		Shoda se skl. systémem Acc. storage systém	Vážení weighing	1	Dávka Batch	PP 15-01-96 ; PP 15-06-99	TOP 13-01-96 ; TOP 19-01-97
11			Množství a druh balení Quantity and sort of package		Shoda se skl. systémem Acc. storage systém	Vizuálně Visual	1	Dávka Batch	PP 15-01-96 ; PP 15-06-99	TOP 13-01-96 ; TOP 19-01-97
12			Číslo dílu a množství Part Number and quantity		Shoda s dodacím listem Acc. delivery note	Vizuálně Visual	1	Dodávka Delivery	PP 15-01-96 ; PP 15-06-99	TOP 13-01-96 ; TOP 19-01-97

Initial Process Study - SPC

Variable characteristic - weight

Part number: **224721001**

Mould number: **400024200**

Gauge: **Sartorius LP 1200 (0 - 1200 g)**

Part name: **Páska 2K**

Sample size: **5**

Char. code: **41**

Sample freq.: **0**

Char. name: **Hmotnost/weight**

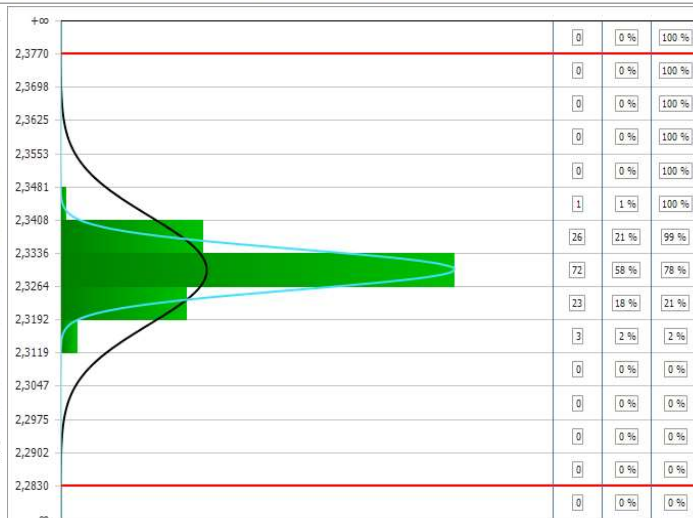
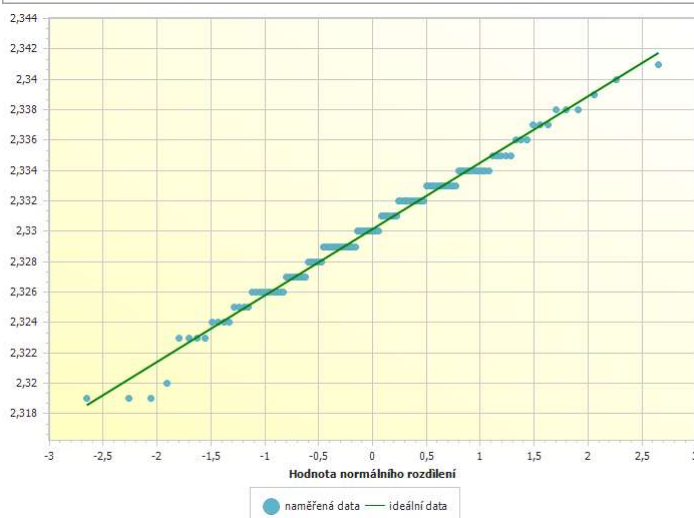
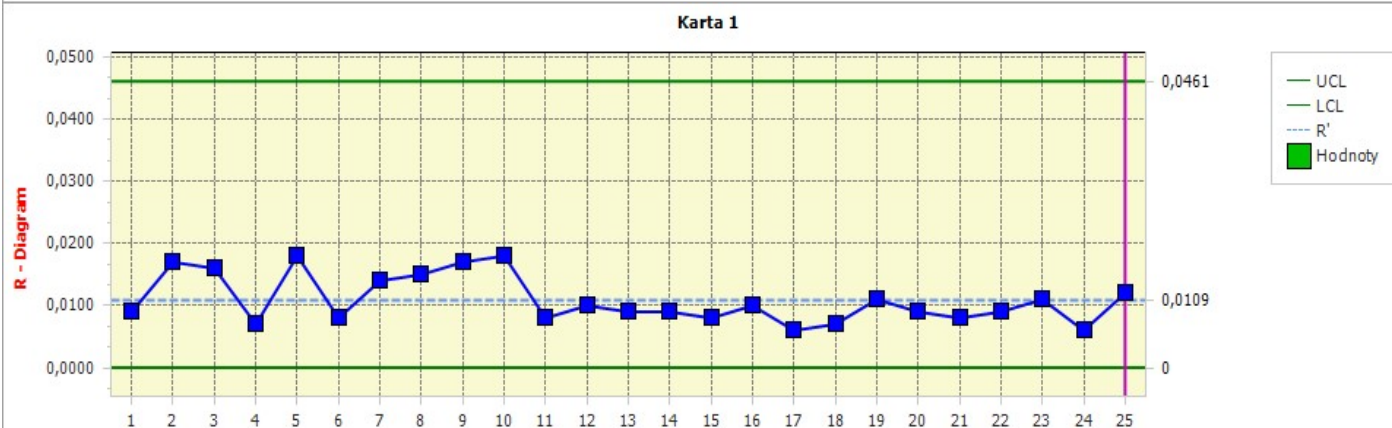
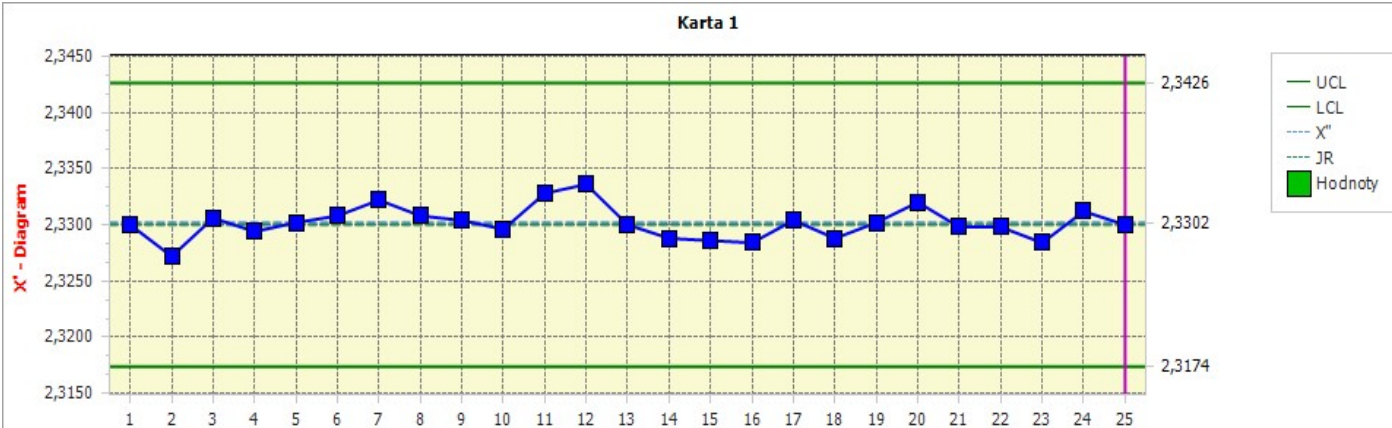
Card size: **25**

Nom.: **2,330**

USL: **2,377**

LSL: **2,283**

g



Pp **3,58**

Cp **3,39**

Ppk **3,57**

Cpk **3,37**

Calculation method: **DIN 21747**

M1 (L1;D4)

M1 (L1;D2)

X': **2,3302**

Over USL: **0**

PE: **0**

R: **0,0220**

Under LSL: **0**

Expected error % **0**

S: **0,0044**

This document provides basic information for correct usage of parts manufactured by the company

To achieve required mechanical properties, some parts are water conditioned. Before using the parts, it is necessary to store these parts in closed bags, see figure 1. We recommend resealing the bags after 8 hours (maximum) of open condition to maintain its mechanical properties.



The figure 1 Water conditioned parts

Parts with film hinges

Thin surfaces (see figure 2) of film hinges can become fragile during cold weather months, such as on winter season. Consequently, parts' breaking on this area maybe observed therefore we recommend before using them to heat them (20-25°C / 48 h).

For parts manufactured with polypropylene (PP) material a whitening of the material on the area when flex or bend may appear. This whitening condition is not a defect nor does it affect the fit and function.



The figure 2 Parts with film hinges

Small visual defects

Parts which have prescribed tread pattern and appearance can appear small visual defects (like burr/flash, ejector mark, parting line, burn, spots, short shot/not completely moulded, sink marks, see figure 3 to 9), these types of defects do not have negative impact for proper part usage.



The figure 3 Burr/flash



The figure 4 Ejector marks and burrs



The figure 5 Parting line



The figure 6 Burn



The figure 7 Spots



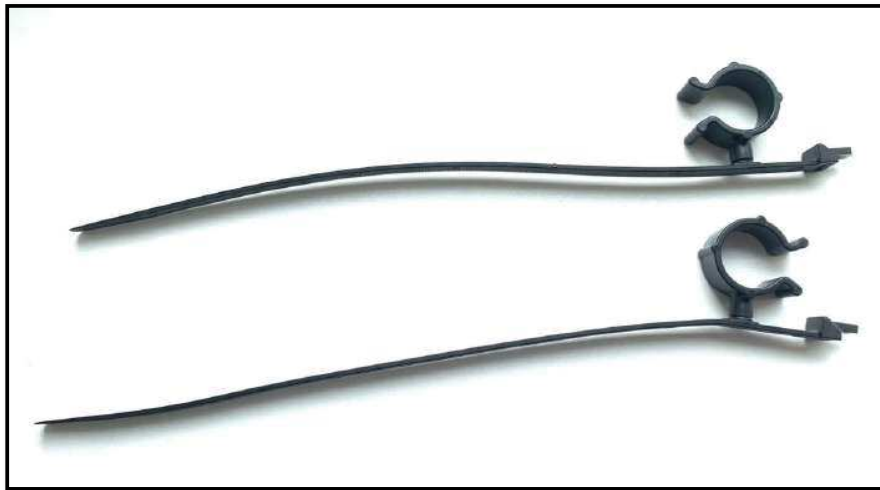
The figure 8 Short shot/not completely moulded



The figure 9 sink marks

Assembled swivel clips

During the transport of the part can happen that clip will turn, (regarding the drawing), this is given by property of the part which is revolving according to its axis, see picture 10. Also, the straps can lightly bend because of transport and they will not be straight → even this is not the defect and it does not influence the function of the product, see figure 10.



The figure 10 swivel clips

Sprues in packaging

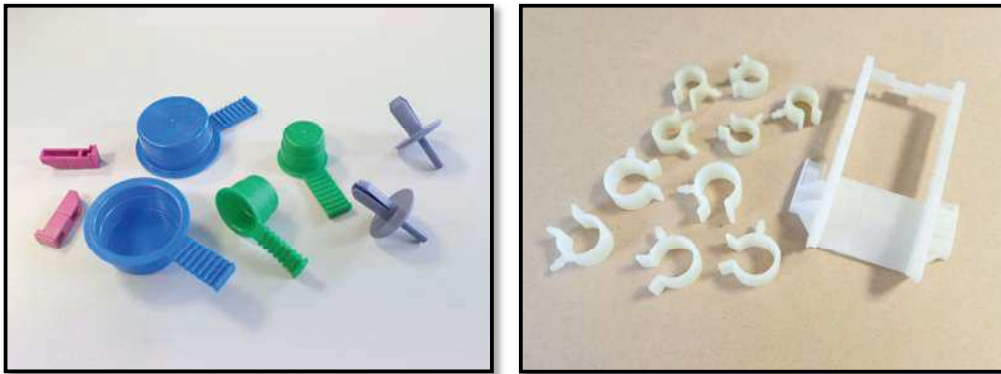
Despite maximum trying to separate sprues system from completed parts can happen appearing of sprues in the final packaging, see figure 11.



The figure 11 Sprues in packaging

Color of parts

For parts that have not been defined with shade of color by RAL or others agreed standards, are parts delivered in general range according to the color defined in the drawing (natural color, black, etc.), see figure 12. In case that the customer uses a camera for part presence inspection, the customer must notify the manufacturer prior to implementing vision camera system.



The figure 12 Parts colors

Parts application

Customers must use the parts as specified on the drawing (see figure 13). In the case of using parts on a different specification, A.Raymond Jablonec can do informative parts testing.

Nekotované rozmery prevzit z 3D modelu
Missing dimensions have to be taken
from 3D data

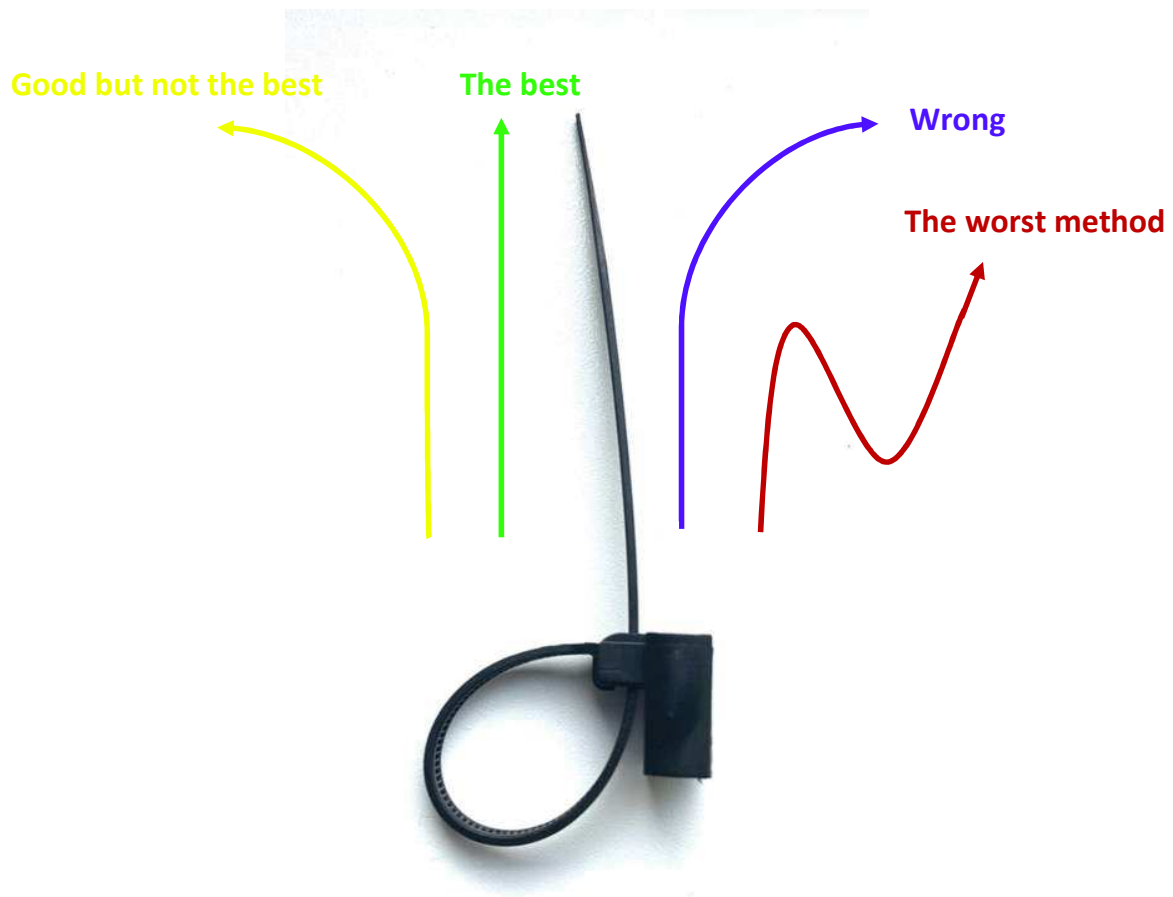
Urceno pro svazky $\varnothing$ 0.5 ... 25 mm
Upinaci prumer diry $\varnothing$ 6.5+0.2 mm
Upinaci tloustka plechu: 0.6 ... 1.3 mm

Suitable for cable bundles $\varnothing$ 0.5 ... 25 mm
Fastening hole $\varnothing$ 6.5+0.2 mm
Fastening thickness: 0.6 ... 1.3 mm

The figure 13 Parts application

Cable straps

For tightening cable straps, we recommend using tightening gun set up to the force 110+/-10N, unless otherwise defined in the drawing. We recommend doing the tightening perpendicular to the bundle. Figure 14 – comparison of tightening methods.



The figure 14 Comparison of tightening methods

Automatic assembly

If the offer has not explicit agreement to use a part for automatic assembly, please let us know. Figure 15 is the mark in the drawing.

Vor Auslegung einer automatisierten Verarbeitung des Teils sollte Rücksprache mit Fa. A.Raymond gehalten werden.
Fully automatic processing of the part requires prior consultation with A.Raymond GmbH.

The figure 15 Mark in the drawing

Metal parts

According to a technology of manufacturing and the shape of metal parts, conditions with parts sticking and mixed with similar parts cannot be prevented 100% (see figure 16).

Due to the manufacturing technology and necessary additional operations (see process diagram), PPM 250 is set for metal parts, this PPM index corresponds to the number of non-compliant products delivered within six (6) months from the start of serial production.



The figure 16 parts sticked together