

[illegible]



Process Flow Chart

Form #: FQC-26
Revision: 1 (3/26/2013)

Customer: Sumitomo Electrical Wiring Systems			Key Contact: Frank Moyer - (823) 687-5300 x254 - fmoyer@atlas-plastics.com	
Atlas Part #: 69117255			Supplier: Atlas Precision	
Finish Part #: 6911-7255			Original Date: 2/28/2020	
Drawing: LUST-14N003-CLB Rev. A2 Dated: 1/20/2020			Revision: 0	
			Date Revised: 2/26/2020	
Supplier / Plant Approval Date: 3/6/2020				
Core Team: Quality Manager: Keith Ramsey / Quality Engineer: Frank Moyer / Process Engineer: Zach Shupe / Operations Manager: Dennis Kanupp				

Symbol	Step #	Activity	Description
	#00	Receive And Confirm Order	Receive Order And Confirm Due Date. Order Packaging And/Or Materials.
	#10	Receive Raw Material	Receive Raw Material On Dock And Do Check For Physical Damage. Store In Assigned Area. Notify Quality Department Inspection Is Needed.
	#20	Certification And Audit Inspection	Complete Receiving Inspection. Apply Fifo Identification Labels To Each Container. If Acceptable Notify Warehouse For Movement To Storage Area. Reject Without Proper Material Certification, Lot Number Control And/Or Identification. Contact Vendor For Corrective Action If Rejected.
	#30	Material Mixing, Storage, And Drying	Prepare Material/Place In Dryer. * DURANEX 201AC P-B1 ° - Dry At 250° For 3 Hours Place Identification Labels On All Containers. Write Time Material Will Be Dry On Laminated Flip Chart
	#40	Start Up Of Production	Verify Correct Material, Mold, And Line Clearance Set Process To Master, Verify Parameters Visually Check Part For Defect Once Process Is Stable. Verify Conveyor Reverses At Alarm. Submit To The Quality Department For Inspection.
	#45	Quality Start Up Inspection	Complete All Items On The Manufacturing Inspection Plan (MQIP) For Start Up Inspection Reject All Nonconforming Products With Formal Rejection Notice. (Form FQC_2) Quarantine All Suspect Material. Notify Production. Update Quality Alerts, Critical Position Sheets And Work Instructions As Appropriate.
	#50	Operator Run Production	Operator To Begin Packaging Of Product. Place Blue Container Under The Press. Discard Product In Gray Sample Container. Flip The Press Status Card To 'Production'. Obtain Paperwork And Label Package. Weigh Count And Label Each Completed Box Per Packaging Instructions. Place On Skid At Press.
	#60	Quality Inspection	Complete All Items On The Manufacturing Inspection Plan (MQIP) Reject All Nonconforming Products With Formal Rejection Notice. (Form FQC_2) Notify Production. Back Track And Quarantine All Suspect Material. Update Quality Alerts, Critical Position Sheets And Work Instructions As Appropriate.
	#70	Quality Roving Inspection	Complete All Items On The Manufacturing Inspection Plan (MQIP) Reject All Nonconforming Products With Formal Rejection Notice. (Form FQC_2) Notify Production. Back Track And Quarantine All Suspect Material. Update Quality Alerts, Critical Position Sheets And Work Instructions As Appropriate.
	#80	Initial Inspection Process	Product Is Transacted Into QA Lab/Certified Sort Area. Complete All Items On The Certified Sort Area Procedures (QA-090). Transact Product Out Of QA Lab/Certified Sort Area.
	#90	Final Audit	Inspected Parts Sent To Final Audit. Random Sample Boxes Checked For Defects And Weigh Count. Accepted Boxes Stamped Approved. Reject All Nonconforming Products With Formal Rejection Notice. (Form FQC_2) Notify Production. Back Track And Quarantine All Suspect Material. Update Quality Alerts, Critical Position Sheets And Work Instructions As Appropriate.
	#95	Storage And Preservation	Final Audit Accepted Boxes Moved To Warehouse For Storage.
	#100	Shipping	Inspect Product Labels For Duplicates. Inspect For Box Condition. Wrapped And Shipped To Customer As Per Customer Orders.

Symbol	Activity
	Production
	Inspection
	Storage
	Certified Sort
	Shipping

Rev	Date	Changes	Revised
0	2/28/2020	Initial Release	Frank Moyer

RETAINER TO HOUSING INSERTION FORCE DATA

ORGANIZATION: Atlas Precision, Inc.

PART Name/Desc: FOW120C03FR-B1

PART NO (s): 69117256

Mold #: 1807

Specification: SEE BELOW

Tested by/Date: 3/3/2020 Joe Mackey

Design Rec. Change level/date: LU5T-14N003-CLB A2 1/20/20

Eng. Change Documents: NA

COVER INSERTION FORCE WITH MATED CONNECTOR SPEC: 60.0 N MAX									COVER RETENTION FORCE WITH MATED CONNECTOR SPEC: 78.0 N MIN							
CAVITY #	M1	M2	M3	M4	M5	M6	M7	M8	M1	M2	M3	M4	M5	M6	M7	M8
1	33.0	36.5	25.0	28.0	30.5	29.0	31.0	26.0	89.5	88.5	79.5	88.0	93.5	99.5	82.5	83.0
2	34.0	28.5	32.0	28.5	32.5	29.5	33.5	35.0	83.5	83.0	88.5	84.5	84.5	92.5	84.0	84.5
3	30.0	30.0	30.0	25.5	21.0	34.5	26.0	24.5	85.0	80.0	85.5	86.0	90.0	87.0	90.0	96.5
4	33.0	39.5	26.0	27.5	31.0	25.0	28.5	27.5	80.0	92.0	83.0	90.5	87.5	80.5	88.5	84.5
5	21.5	24.5	35.0	29.0	35.5	23.5	31.5	29.5	81.5	81.5	86.5	84.0	89.0	88.0	88.0	85.0

AVERAGE	30.3	31.8	29.6	27.7	30.1	28.3	30.1	28.5	83.9	85.0	84.6	86.6	88.9	89.5	86.6	86.7
MIN	21.5	24.5	25.0	25.5	21.0	23.5	26.0	24.5	80.0	80.0	79.5	84.0	84.5	80.5	82.5	83.0
MAX	34.0	39.5	35.0	29.0	35.5	34.5	33.5	35.0	89.5	92.0	88.5	90.5	93.5	99.5	90.0	96.5

Blanket statements of conformance are unacceptable for any test results.

3/30/2023

TO WHOM IT MAY CONCERN

Polyplastics

DAICEL Group
POLYPLASTICS CO., LTD.
JR SHINAGAWA EAST BLDG. 13
2-18-1, KONAN
MINATO-KU, TOKYO, 108-8280 JAPAN

CERTIFICATE OF ANALYSIS

WE HEREBY CERTIFY THAT THE UNDERMENTIONED LOT WAS DULY
INSPECTED AND PASSED BY OUR QUALITY CONTROL DEPARTMENT.

POLYBUTYLENE TEREPHTHALATE
DURANEX (R)

GRADE: COLOR NO.

201AC P-B1

LOT NO.

G022568600

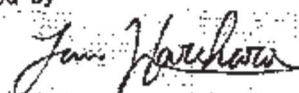
JUDGMENT

PASS

ITEM	TESTING METHOD	UNIT	VALUE
Tensile strength	ISO 527-1,2	MPa	58.9
Tensile strain	ISO 527-1,2	%	41.1
MFR	ISO 1133	g/10min	30

2022/07/28

Approved By



QUALITY ASSURANCE DEPARTMENT
JUN HARUHARA

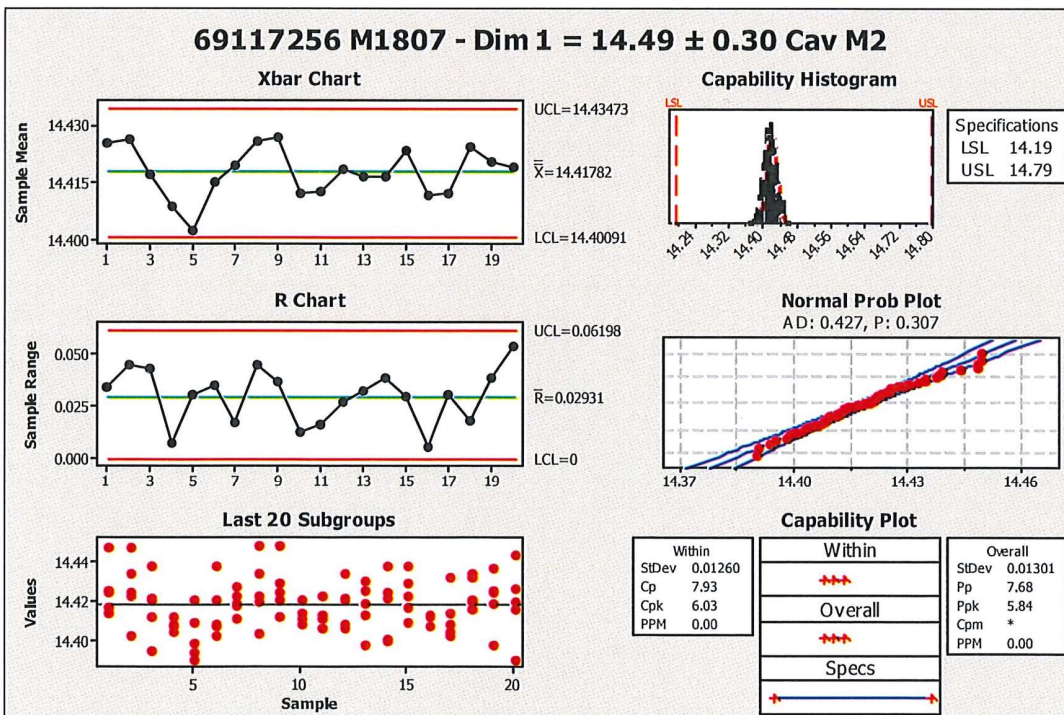
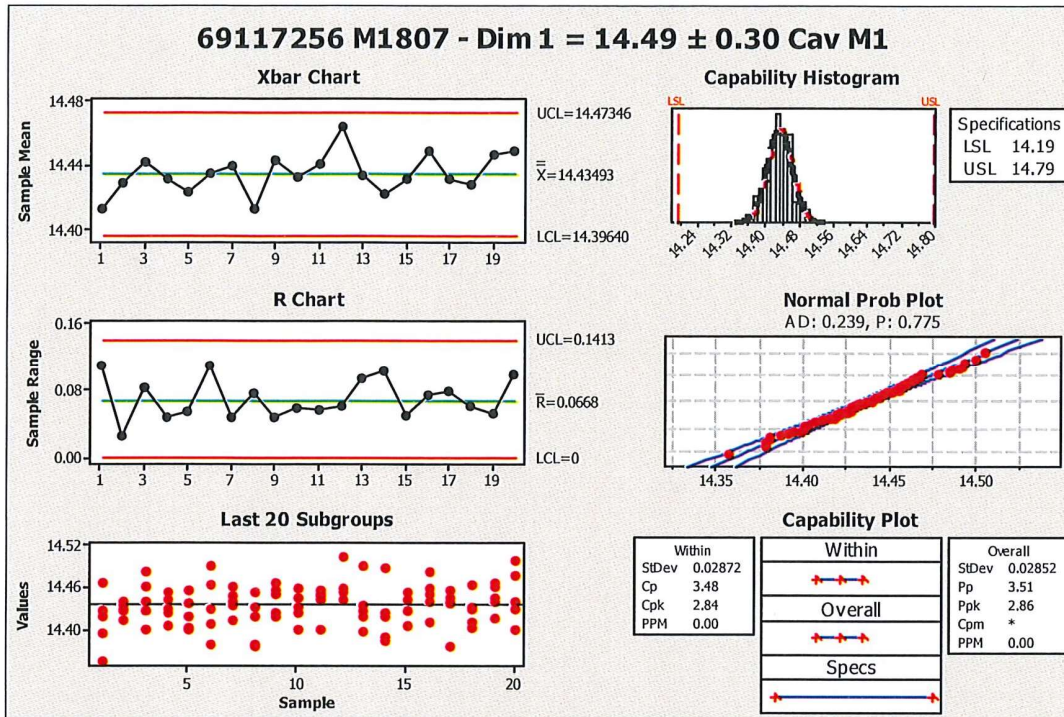
※according to EN 10204-3.1

※This lot complies with RoHS requirements.

DURANEX (R) is a registered trademark of Polyplastics Co., Ltd. in Japan and other countries.

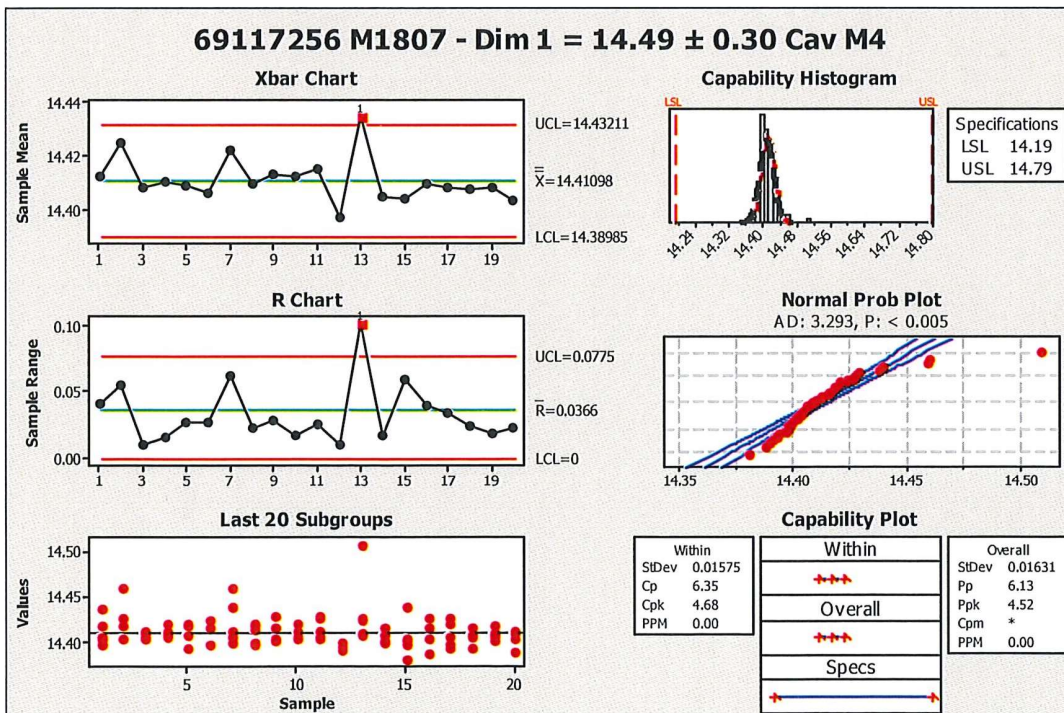
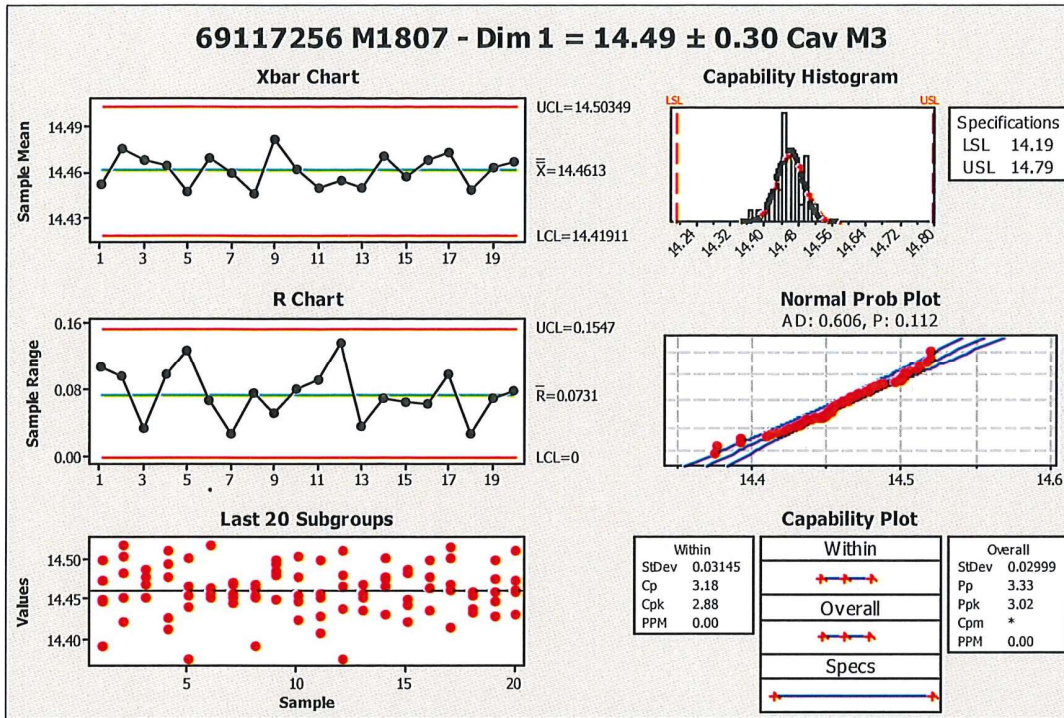
Capability Study

69117256 Mold 1807



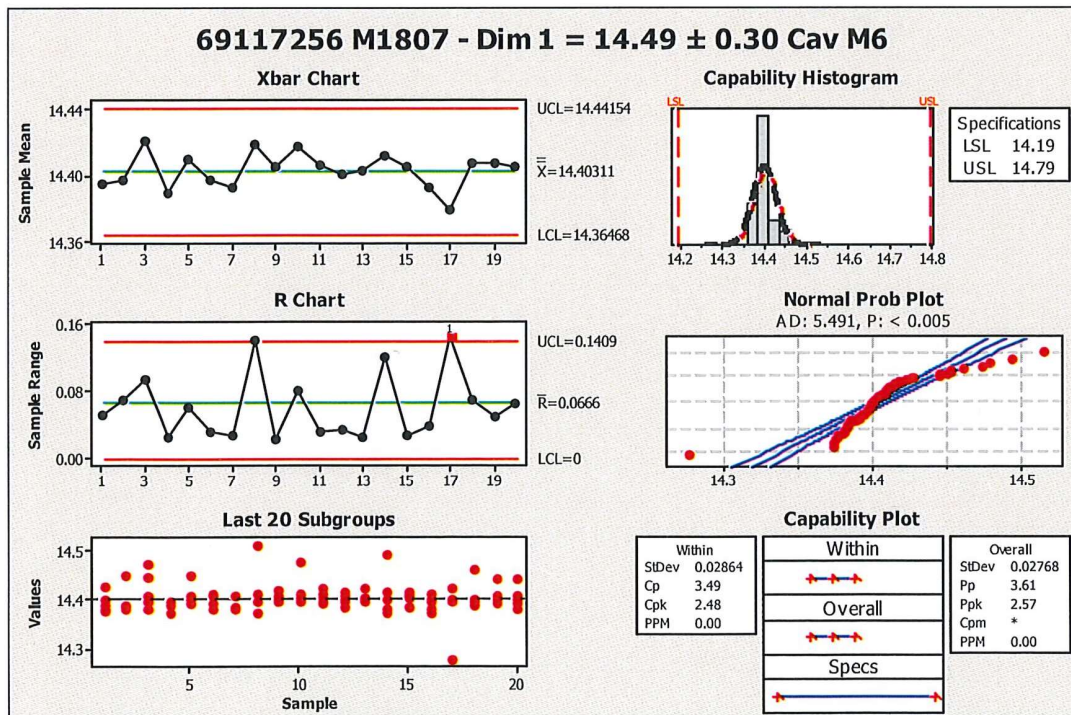
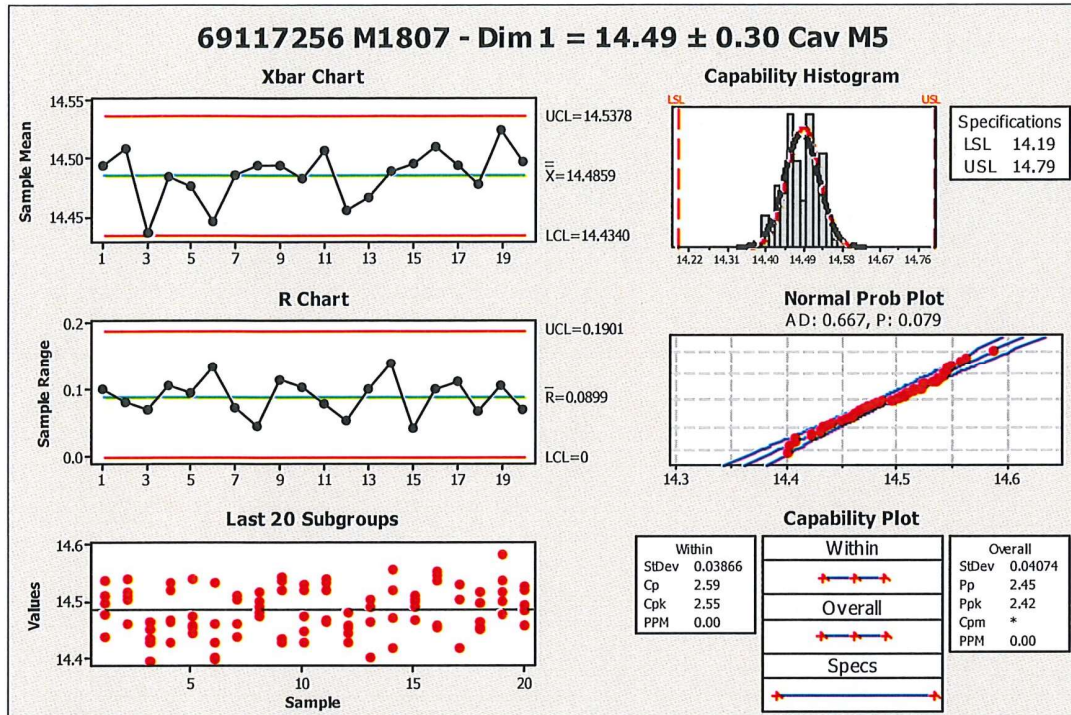
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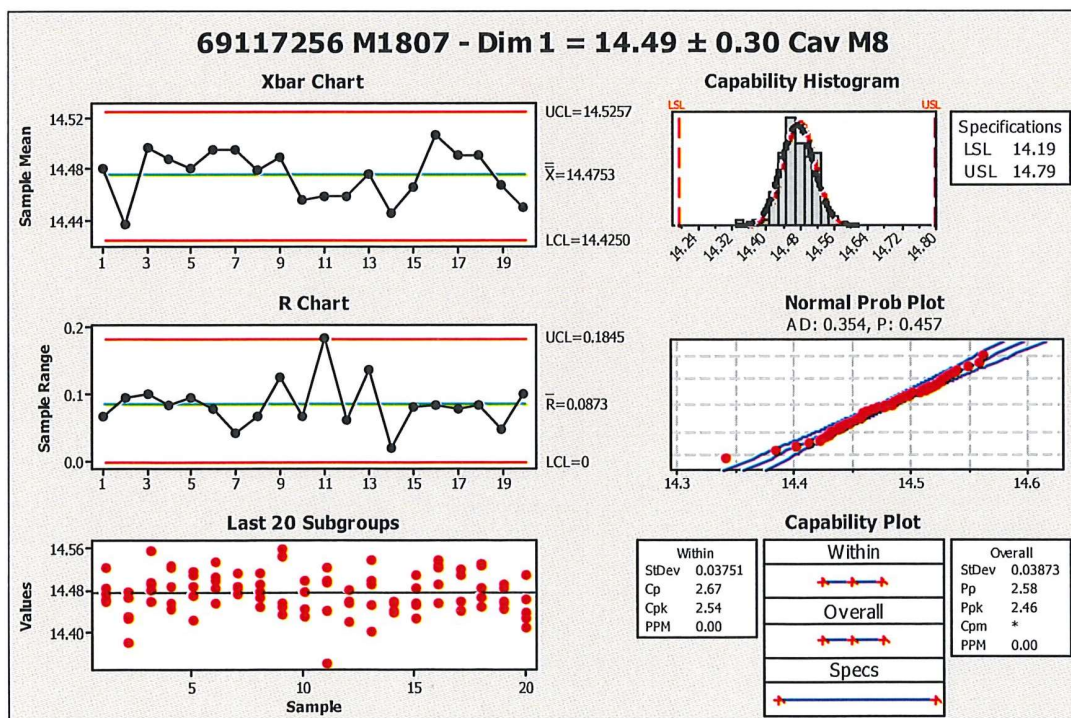
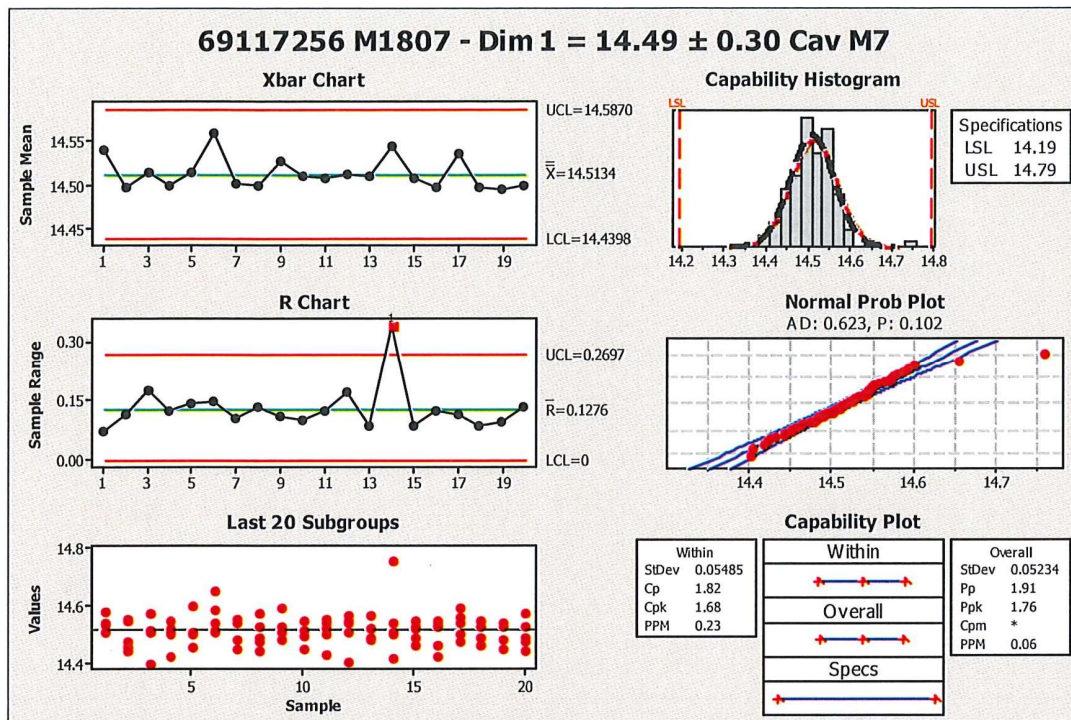
Capability Study

69117256 Mold 1807



Capability Study

69117256 Mold 1807





PERRY JOHNSON REGISTRARS, INC.

Certificate of Registration

Perry Johnson Registrars, Inc., has audited the Quality Management System of:

Atlas Precision

170 Clayton Road, Arden, NC 28704 United States

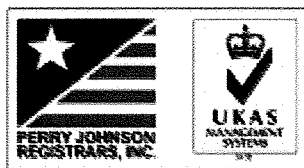
*(Hereinafter called the Organization) and hereby declares that
Organization is in conformance with:*

ISO 9001:2015

This Registration is in respect to the following scope:

Manufacture of Injection Molded Plastic Products and Tooling Design

*This Registration is granted subject to the system rules governing the Registration referred to above, and the
Organization hereby covenants with the Assessment body duty to observe and comply with the said rules.*



Terry Boboige

Terry Boboige, President

Perry Johnson Registrars, Inc. (PJR)
755 West Big Beaver Road, Suite 1340
Troy, Michigan 48064
(248) 358-3388

The use of the UKAS accreditation symbol is in respect to the activities covered by the Accreditation Certificate Number 9105.

The validity of this certificate is dependent upon ongoing surveillance.

Effective Date:

December 6, 2019

Expiration Date:

December 5, 2022

Certificate No.:

C2019-03760



QA-PR-040 – LAB SCOPE

Lab Technician / Quality Lab

Title :	Lab Scope Procedure	Issued Date :	5/02/2017
Document Control Number :	QA-PR-040	Revision Date :	6/12/2017
Document Approval :	D.Clark	Revision No :	2

1.0 Purpose:

- 1.1 The purpose of This procedure summarizes the testing capabilities available to Atlas Precision and clarifies the equipment, test standard, recording method and reaction plans.

2.0 Scope

- 2.1 This applies to the ability to test parts to the customer standard, and recording information on the correct forms.

3.0 Responsibilities:

- 3.1 The Quality Manager or lab technician

4.0 Procedure

Testing Method:				
Test Preformed	Equipment Used	Test Method	Recording Method	Reaction Method
Waterproof Test	Water Proof Tester	QA-54 Waterproof Test	FQC-1 MQIP	SOP 13.0-001 Control of Nonconforming FQC-2
Insertion & Retention Test	Force Gauge	SEWS Insertion & Retention Procedure	FQC-1 MQIP	SOP 13.0-001 Control of Nonconforming FQC-2
Freeze Test	Freezer	QA-PR-051 Robust Test	FQC-1 MQIP	SOP 13.0-001 Control of Nonconforming FQC-2
Equipment Calibration:				
Gauge blocks	FD Hurka	Calibrated to national standards	FD Hurka Cert	Reject tag procedure
Microvu	FD Hurka	Per procedure – certification supplied	FD Hurka Cert	Reject tag procedure
Comparator	Quality Comparator	Per procedure – certification supplied	Quality Comparator Cert	Reject tag procedure
Moisture analyzer	Sartorius	Per procedure – certification supplied	Sartorius Cert	Reject tag procedure
Weight scales	Braswell Scale	Per procedure – certification supplied	Braswell Scale Cert	Reject tag procedure
Force gage	FD Hurka	Per procedure – certification supplied	FD Hurka	Reject tag procedure
Calipers	FD Hurka	Per procedure – certification supplied	FD Hurka Cert	Reject tag procedure
Micrometers	FD Hurka	Per procedure – certification supplied	FD Hurka Cert	Reject tag procedure
Height stand	FD Hurka	Per procedure – certification supplied	FD Hurka Cert	Reject tag procedure
Drop indicator	FD Hurka	Per procedure – certification supplied	FD Hurka Cert	Reject tag procedure
Gages/fixtures	FD Hurka	Per procedure – certification supplied	Per customer	Reject tag procedure



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5.0 Revision History

Revision	Description	Revised By	Date
0	Updated to new format	J.Dalton	5/02/2017
1	Updated Calibration Resource	J.Dalton	6/06/2017
2	Removed Unused/Out Of Service Items	D. Clark	6/12/2017

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DURANEX (R)

GRADE/COLOR NO.

201AC P-B1

LOT NO.

G022568600

JUDGMENT

PASS

ITEM	TESTING METHOD	UNIT	VALUE
Tensile strength	ISO 527-1,2	MPa	58.9
Tensile strain	ISO 527-1,2	%	41.1
MFR	ISO 1133	g/10min	30

2022/07/28

Approved By



QUALITY ASSURANCE DEPARTMENT
JUN HARUHARA

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