Part Submission Warrant

Part Name	MX150 RECEPTACLE CAVITY PLUG	Cust. Part Number	MU5T-10C930-UA
Shown on Drawing Number	SD-34345-001	Org. Part Number	343454001
Engineering Change Level	D6	Dated	14-Oct-2021
Additional Engineering Changes	N/A	Dated	N/A
Safety and/or Government Regulation	☐ Yes ☑ No	Purchase Order No.	N/A
Weight (kg)	0,0003		
Checking Aid Number	N/A	Checking Aid Eng. Change Level	N/A
Dated	N/A		

ORGANIZATION MANUFACTURING INFORMATION

Molex LLC DUNS: 94-4247394
Supplier Name & Supplier/Vendor Code

700 Kingbird Road
Street Address

Lincoln | Nebraska | 68521 | USA
City | Region | Postal Code | Country

CUSTOMER SUBMITTAL INFORMATION

Nursan
Customer Name/Division

N/A
Buyer/Buyer Code

N/A
Application

MATERIALS REPORTING

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

Submitted by IMDS or other customer format: IMDS ID# 928422266

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
- ☐ Sub-Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts produced at Additional Location
- ☐ Other - please specify

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: Molding Process

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 308,688 / 8 hours. I also certify that documented evidence of such compliance is on file and available for your review. I have noted any deviation from this declaration below.

EXPLANATION/COMMENTS:

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

Organization Authorized Signature: Kevin Maechtlinger Date: 03-Mar-22

Print Name	Kevin Maechtlinger	Phone No.	+49-7243-335-376	Fax No.	N/A
Title	Quality Engineer	E-mail	kevin.maechtlinger@molex.com		

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature _____ Date _____

Print Name _____ Customer Tracking Number (optional) _____

File ID:	Molex Lincoln Operations Quality Inspection Report
LINC8841A	

Part Number	34345-4001	Supplier	Lincoln Molding
Process	Molding	Submitter	Craig Peters
Part Revision	D6	Product Engineer	
Cavities/Ups/Stations	64	Process Engineer	
Submission Type	FLP	Quality Engineer	Josh Fenster
Completion Date	15-Sep-21	Technician	Tim Blair
Part Description	MX 150 CAVITY PLUG SEALED		
Gauge ID(s) Used	OGP 302 Flash S/N: SVW3024847		

Gauge Type Legend:

Cal	Calipers	**DG**	Depth Gauge	**Mic**	Micrometer	**VS**	Vision System
CMM	CMM	**Ga**	Gauge	**Nk**	Nikon Microscope	**V**	Visual
Com	Comparitor	**GP**	Gauge Pin	**Tm**	Toolmakers Microscope		

	Signature	Disposition	Date	ECN / Deviation #
Product Engineer				
Process Engineer				
Quality Engineer	*Jeremy Dinges*	*Accept*	*10/25/21*	

Comments: Print revision changed from D5 to D6 on 14-Oct-2021. Revision change did not result in dimensional changes, parts not remeasured.

Total number of measurements taken = 192
Total number of measurements in spec. = 192
Percent of measurements meeting spec. = 100.0%
* = Does not meet specificatior

Dim. # & Type		Specification Nominal		Tolerance			Actual Measurements													Gauge Type	Insp. Pts.	# Out of Tol.	Changed Spec. or Fix
			+		-																			
			+		-																			
20			+		-		**Cav1A**	**Cav2A**	**Cav3A**	**Cav4A**	**Cav5A**	**Cav6A**	**Cav7A**	**Cav8A**	**Cav1B**	**Cav2B**	**Cav3B**	**Cav4B**	**Cav5B**				
		28.85	+	0.20	-	0.20	28.801	28.816	28.716	28.691	28.759	28.755	28.793	28.787	28.839	28.845	28.850	28.834	28.840	**VS**	13		
			+		-		**Cav6B**	**Cav7B**	**Cav8B**	**Cav1C**	**Cav2C**	**Cav3C**	**Cav4C**	**Cav5C**	**Cav6C**	**Cav7C**	**Cav8C**	**Cav1D**	**Cav2D**				
		28.85	+	0.20	-	0.20	28.850	28.852	28.848	28.833	28.832	28.828	28.843	28.838	28.835	28.854	28.847	28.843	28.836	**VS**	13		
			+		-		**Cav3D**	**Cav4D**	**Cav5D**	**Cav6D**	**Cav7D**	**Cav8D**	**Cav1E**	**Cav2E**	**Cav3E**	**Cav4E**	**Cav5E**	**Cav6E**	**Cav7E**				
		28.85	+	0.20	-	0.20	28.845	28.836	28.842	28.843	28.861	28.828	28.845	28.852	28.849	28.854	28.846	28.857	28.845	**VS**	13		
			+		-		**Cav8E**	**Cav1F**	**Cav2F**	**Cav3F**	**Cav4F**	**Cav5F**	**Cav6F**	**Cav7F**	**Cav8F**	**Cav1G**	**Cav2G**	**Cav3G**	**Cav4G**				
		28.85	+	0.20	-	0.20	28.837	28.836	28.826	28.839	28.828	28.850	28.834	28.827	28.846	28.839	28.839	28.838	28.838	**VS**	13		
			+		-		**Cav5G**	**Cav6G**	**Cav7G**	**Cav8G**	**Cav1H**	**Cav2H**	**Cav3H**	**Cav4H**	**Cav5H**	**Cav6H**	**Cav7H**	**Cav8H**					
		28.85	+	0.20	-	0.20	28.847	28.850	28.871	28.852	28.836	28.832	28.843	28.858	28.837	28.842	28.837	28.842		**VS**	12		
			+		-																		
			+		-																		
23			+		-		**Cav1A**	**Cav2A**	**Cav3A**	**Cav4A**	**Cav5A**	**Cav6A**	**Cav7A**	**Cav8A**	**Cav1B**	**Cav2B**	**Cav3B**	**Cav4B**	**Cav5B**				
		9.95	+	0.10	-	0.10	9.927	10.006	10.032	10.029	10.016	10.023	9.937	10.003	9.947	9.936	9.943	9.943	9.932	**VS**	13		
			+		-		**Cav6B**	**Cav7B**	**Cav8B**	**Cav1C**	**Cav2C**	**Cav3C**	**Cav4C**	**Cav5C**	**Cav6C**	**Cav7C**	**Cav8C**	**Cav1D**	**Cav2D**				
		9.95	+	0.10	-	0.10	9.935	9.924	9.936	9.940	9.938	9.957	9.937	9.939	9.940	9.936	9.933	9.935	9.933	**VS**	13		
			+		-		**Cav3D**	**Cav4D**	**Cav5D**	**Cav6D**	**Cav7D**	**Cav8D**	**Cav1E**	**Cav2E**	**Cav3E**	**Cav4E**	**Cav5E**	**Cav6E**	**Cav7E**				
		9.95	+	0.10	-	0.10	9.927	9.925	9.925	9.926	9.907	9.900	9.928	9.926	9.921	9.914	9.919	9.913	9.929	**VS**	13		
			+		-		**Cav8E**	**Cav1F**	**Cav2F**	**Cav3F**	**Cav4F**	**Cav5F**	**Cav6F**	**Cav7F**	**Cav8F**	**Cav1G**	**Cav2G**	**Cav3G**	**Cav4G**				
		9.95	+	0.10	-	0.10	9.907	9.934	9.940	9.935	9.944	9.934	9.926	9.946	9.931	9.943	9.937	9.942	9.929	**VS**	13		
			+		-		**Cav5G**	**Cav6G**	**Cav7G**	**Cav8G**	**Cav1H**	**Cav2H**	**Cav3H**	**Cav4H**	**Cav5H**	**Cav6H**	**Cav7H**	**Cav8H**					
		9.95	+	0.10	-	0.10	9.938	9.928	9.935	9.928	9.937	9.945	9.937	9.920	9.937	9.932	9.949	9.935		**VS**	12		
			+		-																		

Dim. # & Type		Specification Nominal		Tolerance				Actual Measurements													Gauge Type	Insp. Pts.	# Out of Tol.	Changed Spec. or Fix
			+		-																			
			+		-																			
			+		-																			
26			+		-			**Cav1A**	**Cav2A**	**Cav3A**	**Cav4A**	**Cav5A**	**Cav6A**	**Cav7A**	**Cav8A**	**Cav1B**	**Cav2B**	**Cav3B**	**Cav4B**	**Cav5B**				
		2.80	+	0.07	-	0.07		2.730	2.752	2.754	2.748	2.768	2.760	2.757	2.758	2.737	2.761	2.748	2.737	2.750	**VS**	13		
			+		-			**Cav6B**	**Cav7B**	**Cav8B**	**Cav1C**	**Cav2C**	**Cav3C**	**Cav4C**	**Cav5C**	**Cav6C**	**Cav7C**	**Cav8C**	**Cav1D**	**Cav2D**				
		2.80	+	0.07	-	0.07		2.747	2.750	2.751	2.748	2.767	2.751	2.750	2.753	2.747	2.756	2.749	2.736	2.749	**VS**	13		
			+		-			**Cav3D**	**Cav4D**	**Cav5D**	**Cav6D**	**Cav7D**	**Cav8D**	**Cav1E**	**Cav2E**	**Cav3E**	**Cav4E**	**Cav5E**	**Cav6E**	**Cav7E**				
		2.80	+	0.07	-	0.07		2.733	2.740	2.749	2.739	2.731	2.732	2.739	2.751	2.738	2.735	2.742	2.743	2.733	**VS**	13		
			+		-			**Cav8E**	**Cav1F**	**Cav2F**	**Cav3F**	**Cav4F**	**Cav5F**	**Cav6F**	**Cav7F**	**Cav8F**	**Cav1G**	**Cav2G**	**Cav3G**	**Cav4G**				
		2.80	+	0.07	-	0.07		2.732	2.744	2.755	2.759	2.750	2.759	2.752	2.757	2.756	2.746	2.758	2.744	2.746	**VS**	13		
			+		-			**Cav5G**	**Cav6G**	**Cav7G**	**Cav8G**	**Cav1H**	**Cav2H**	**Cav3H**	**Cav4H**	**Cav5H**	**Cav6H**	**Cav7H**	**Cav8H**					
		2.80	+	0.07	-	0.07		2.762	2.758	2.755	2.750	2.735	2.754	2.746	2.743	2.754	2.746	2.753	2.749		**VS**	12		
			+		-																			
			+		-																			
			+		-																			
			+		-																			
			+		-																			

TABLE OF CONTENTS

BILL OF MATERIALS (BOM)

DESCRIPTION	PART NUMBER	COLOR	STATUS	MATERIAL
MX150 BLADE, NATURAL	34345-0001	NATURAL	SALEABLE	PBT
MX150 BLADE, BLACK	34345-0002	BLACK	PLANNED OBSOLESCENCE	PBT
MX150 BLADE EXTENDED	34345-0003	BLACK	SALEABLE	PBT
MX150 RECEPTACLE	34345-4001	STONE GRAY	SALEABLE	SPS PA66

NOTES: VALID UNLESS OTHERWISE SPECIFIED

1. GENERAL:

a. APPLICATION SPECIFICATION SEE: AS-33472-100
- COMPONENTS ARE OPTIONAL AND MUST BE PURCHASED SEPERATELY
- FOR ASSEMBLY INSTRUCTIONS SEE THE APPLICATION SPECIFICATION
- SEAL PLUGS ARE NOT TO BE USED TO REPLACE SHORTING BAR TERMINALS.

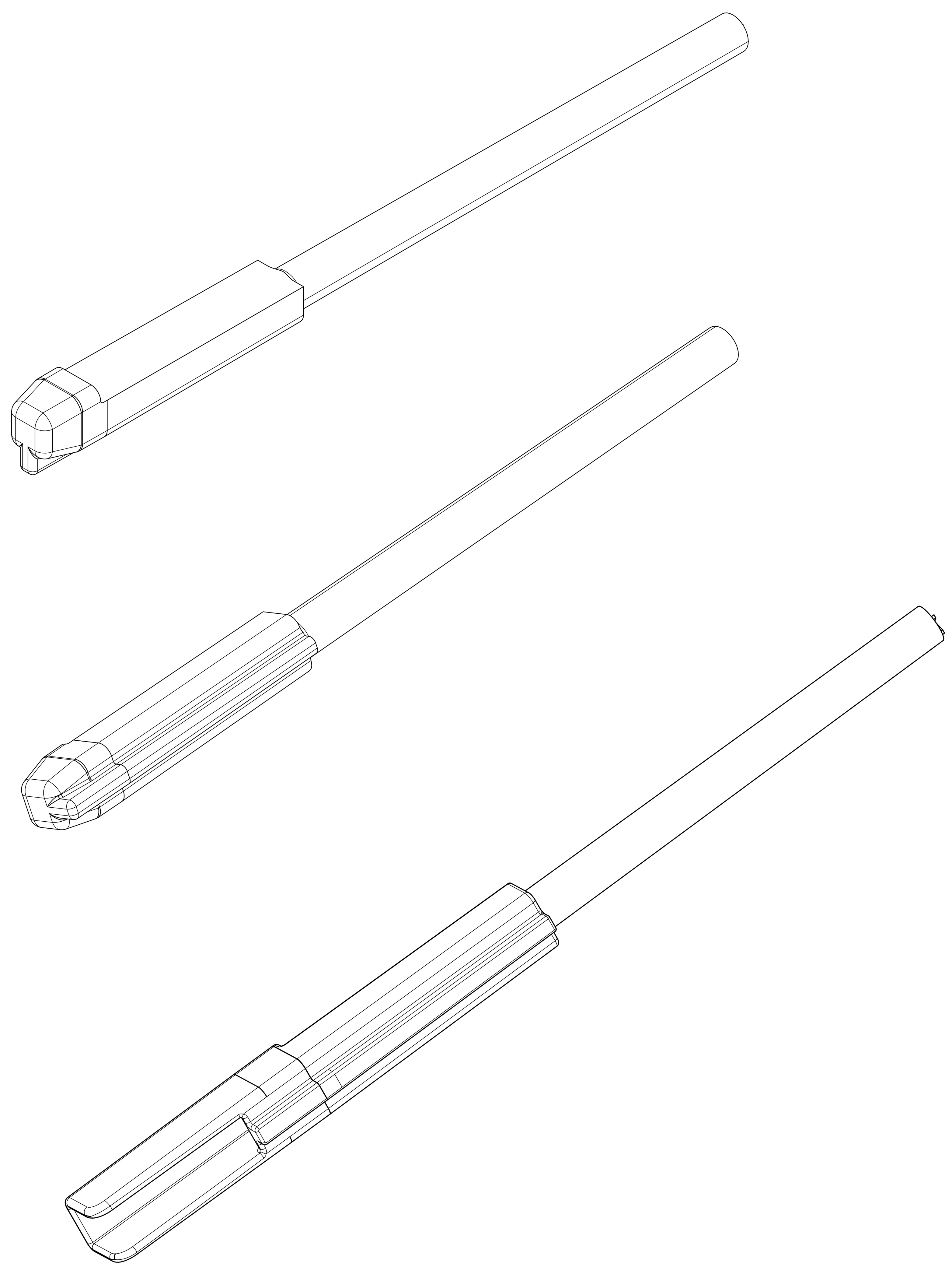
b. PRODUCT SPECIFICATION SEE: N/A
c. PACKAGING SPECIFICATION PER MOLEX DRAWING: PK-31300-438
d. PARTS MUST BE IN COMPLIANCE TO MOLEX CHEMICAL SUBSTANCES FOR PRODUCTS AND PACKAGING SPECIFICATION: QEHS-699000-300
e. DATA MUST BE SUBMITTED UNDER THE MOLEX PART NUMBER TO IMDS (COMPANY ID#13255)

2. DESIGN - MATERIALS:

a. MATERIAL: SEE TABLE

3. DESIGN - GEOMETRY:

a. ALL GRAPHIC DATA IS BASIC (NO TOLERANCE) AND MUST BE TAKEN FROM THE DATA FILE AT ITS LATEST REVISION.
b. GEOMETRIC DIMENSIONS AND TOLERANCES PER ASME Y14.5M - 2009
c. THE BASIC DIMENSIONS OF THE COMPONENT ARE DEFINED BY THE 3-D CAD DATA. THE CAD MATHEMATICAL DATA IS THE MASTER FOR ALL FEATURES AND IS TO BE USED TO ESTABLISH DIMENSIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
d. GENERAL TOLERANCES: SEE TITLE BLOCK
e. EDGES AND UNDIMENSIONED DETAILS PER ISO13715
f. CORNERS SHOWN AS SHARP TO BE R 0.2 MAX.
g. LETTERING SHALL BE 0.15 MAX RAISED.
h. FOR BLADE INSERTION DEPTH FOR RCPT CAVITY PLUG REFER SHEET 4



BALLOON NUMBERS
REMOVED: 6

REV	DESCRIPTION
D6	UPDATED RCPT CAVITY PLUG COLOR
D5	ADDED RCPT PLUG MAX. BLADE INSERTION DEPTH
D4	UPDATED BOM P/N DESCRIPTION
D3	UPDATED DIM 20 TOLERANCE
D2	RCPT CAV PLUG DIMS REMOVED
D1	CHANGE PARTS STATUS TO SALEABLE
D	ADDITION OF RECEPTACLE CAVITY PLUG DETAILS
C6	NX RE-MASTERING

EC NO: 681113 2021/10/12
DRWN: PPALLAN 2021/10/14
CHK'D: KBORUSZEWSKI 2021/10/14
APPR: KBORUSZEWSKI
REV: D6

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ±	3.0 °
4 PLACES	±
3 PLACES	±
2 PLACES	± 0.1
1 PLACE	± 0.3
0 PLACES	±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS: MM ONLY	SCALE: 7:1	
DRWN BY: MVANSLAM	DATE: 10/27/05	
CHK'D BY: ABUTCHER	DATE: 10/27/05	
APPR BY: SMARCEAU	DATE: 10/27/05	
DRAWING SIZE: D	THIRD ANGLE PROJECTION	

molex®

MX150
CAVITY PLUG SEALED

PRODUCT CUSTOMER DRAWING

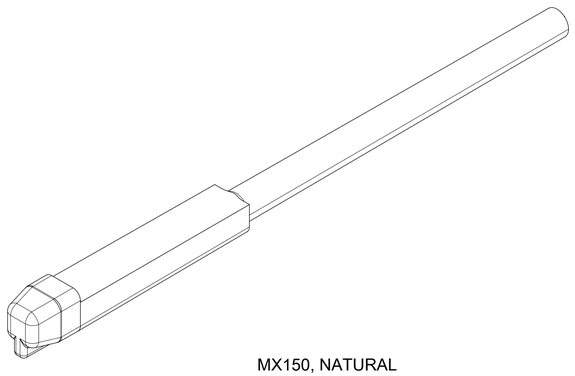
SERIES	MATERIAL NUMBER	CUSTOMER
34345	SEE BOM	GENERAL MARKET

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
SD-34345-001	PSD	000	1 OF 4

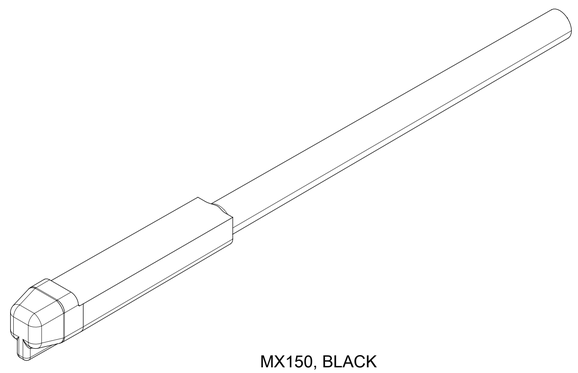
RELEASE STATUS		RELEASE DATE	

SHEET DESCRIPTION

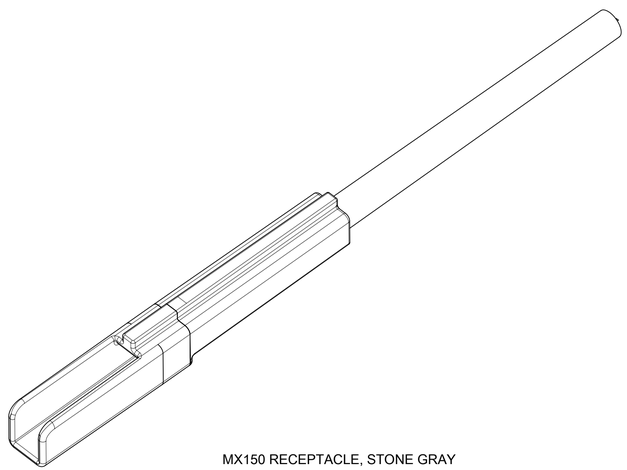
CONFIGURATIONS



MX150, NATURAL



MX150, BLACK



MX150 RECEPTACLE, STONE GRAY

RELEASE STATUS		RELEASE DATE	

EC NO: 681113 2021/10/12
DRWN: PPALLAN 2021/10/14
CHK'D: KBORUSZEWSKI 2021/10/14
APPR: KBORUSZEWSKI

D6 REV

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL	±	3.0 °
4 PLACES	±	
3 PLACES	±	
2 PLACES	±	0.1
1 PLACE	±	0.3
0 PLACES	±	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS: MM ONLY
SCALE: 7:1
DRWN BY: MVANSLAM DATE: 10/27/05
CHK'D BY: ABUTCHER DATE: 10/27/05
APPR BY: SMARCEAU DATE: 10/27/05
DRAWING SIZE: D
THIRD ANGLE PROJECTION

molex®

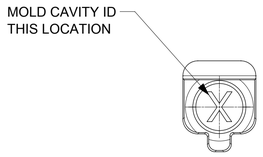
MX150
CAVITY PLUG SEALED

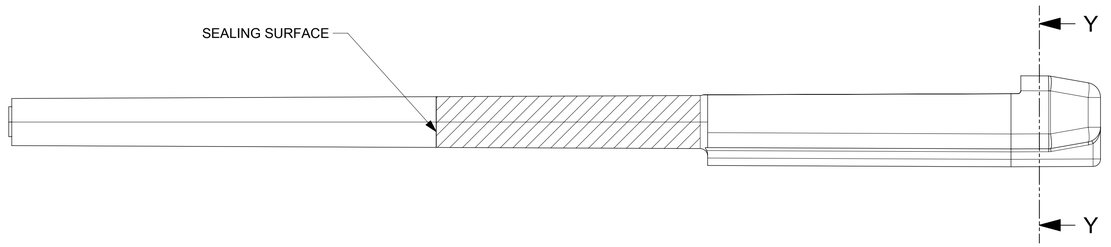
PRODUCT CUSTOMER DRAWING

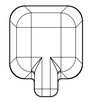
SERIES	MATERIAL NUMBER	CUSTOMER
34345	SEE BOM	GENERAL MARKET

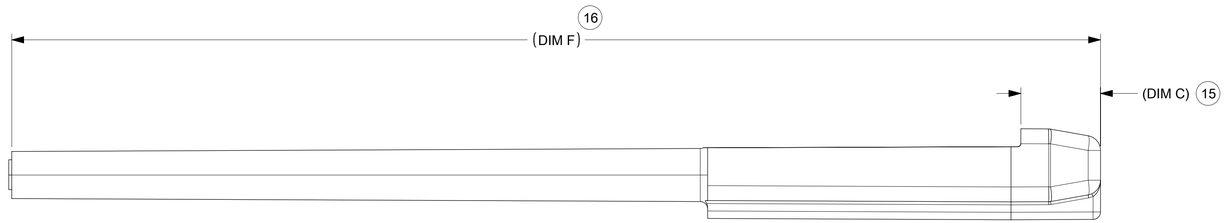
DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
SD-34345-001	PSD	000	2 OF 4

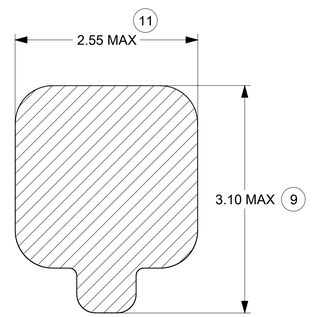
CHARTED DIMENSIONS		
DESCRIPTION	DIMENSIONS	
	C	F
MX150, NATURAL	3	36.8
MX150, BLACK	2.67	36.8
MX150 BLADE EXTENDED	2.67	40.8











SECTION Y-Y
SCALE 25:1

EC NO: 681113 2021/10/12
DRWN: PPALLAN 2021/10/14
CHK'D: KBORUSZEWSKI 2021/10/14
APPR: KBORUSZEWSKI

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGULAR TOL ± 3.0 °	
4 PLACES	±
3 PLACES	±
2 PLACES	± 0.1
1 PLACE	± 0.3
0 PLACES	±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION UNITS	SCALE
MM ONLY	10:1
DRWN BY	DATE
MVANSLAM	10/27/05
CHK'D BY	DATE
ABUTCHER	10/27/05
APPR BY	DATE
SMARCEAU	10/27/05
DRAWING SIZE	THIRD ANGLE PROJECTION
D	

REV D6

molex®

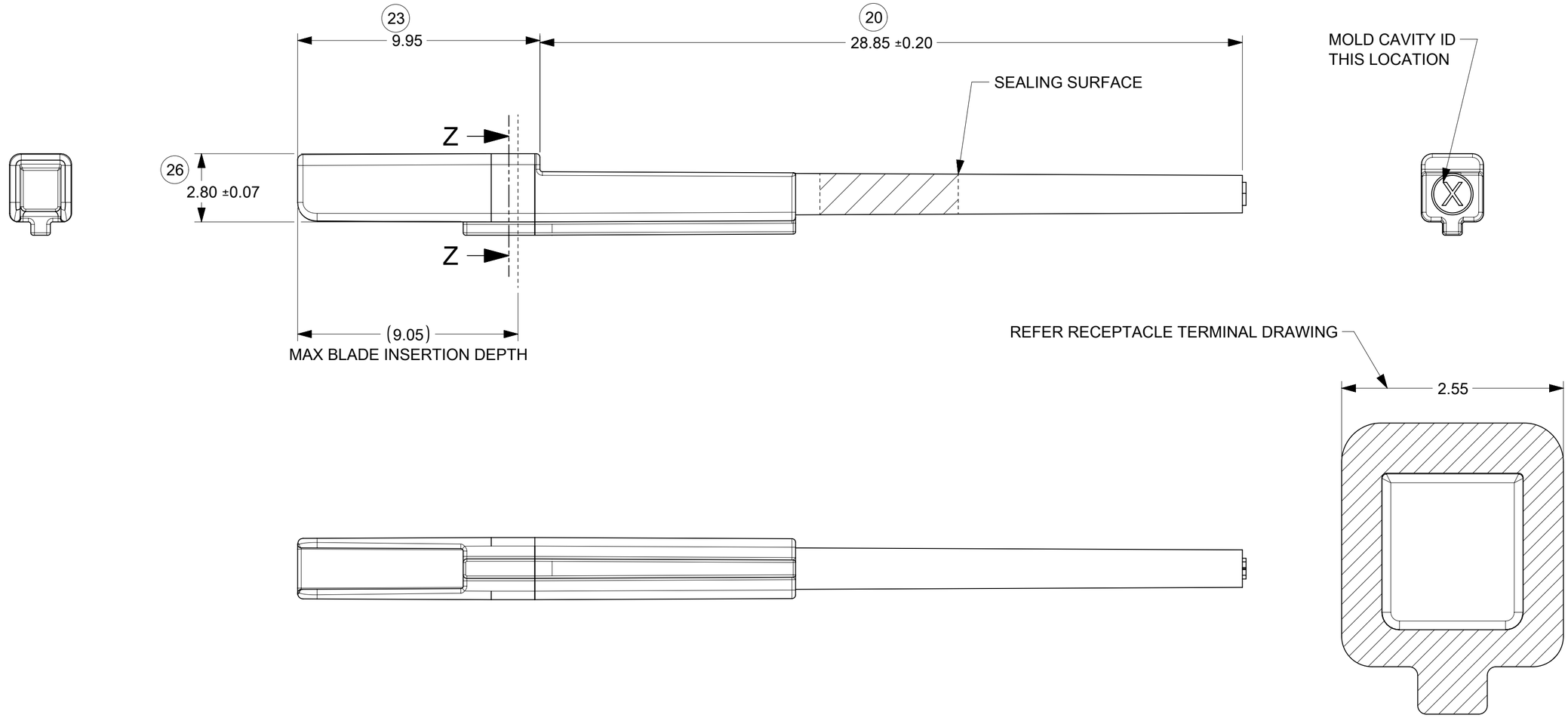
MX150
CAVITY PLUG SEALED

PRODUCT CUSTOMER DRAWING

SERIES	MATERIAL NUMBER	CUSTOMER
34345	SEE BOM	GENERAL MARKET

DOCUMENT NUMBER	DOC TYPE	DOC PART	SHEET NUMBER
SD-34345-001	PSD	000	3 OF 4

RELEASE STATUS		RELEASE DATE	



SECTION Z-Z

DIMENSION UNITS	SCALE
mm	
GENERAL TOLERANCES (UNLESS SPECIFIED)	
ANGULAR TOL	± 3.0 °
4 PLACES	±
3 PLACES	±
2 PLACES	± 0.1
1 PLACE	± 0.3
0 PLACES	±

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

CURRENT REV DESC:

EC NO: 681113
DRWN: PPALLAN 2021/10/12
CHK'D: KBORUSZEWSKI 2021/10/14
APPR: KBORUSZEWSKI 2021/10/14

INITIAL REVISION:
DRWN: MVANSLAMBROU 2005/12/01
APPR: SMARCEAU 2005/12/01

THIRD ANGLE PROJECTION | DRAWING: C-SIZE | SERIES: 34345

molex

MX150
CAVITY PLUG SEALED

PRODUCT CUSTOMER DRAWING

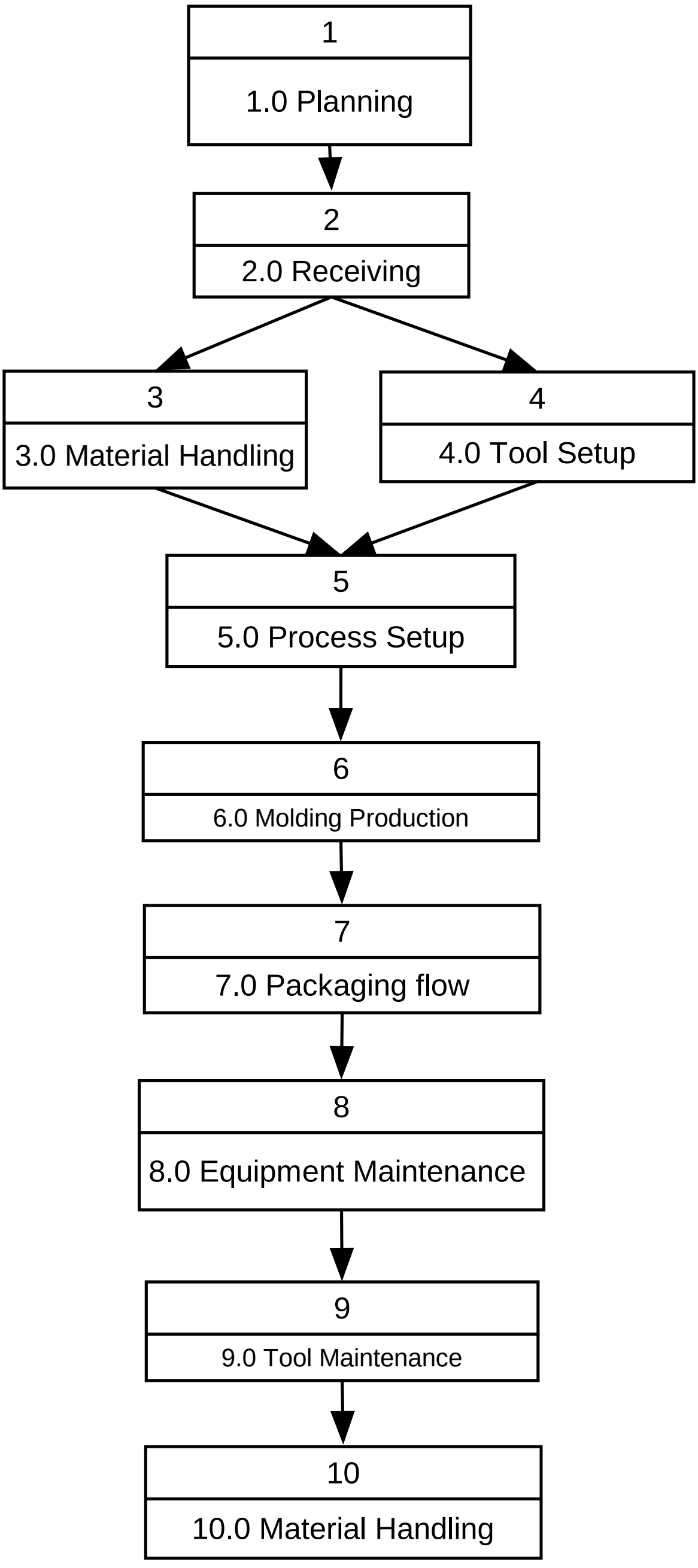
DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
SD-34345-001	PSD	000	D6

MATERIAL NUMBER	CUSTOMER	SHEET NUMBER
	GENERAL MARKET	4 OF 4

DOCUMENT STATUS	P1	RELEASE DATE	2021/10/14 22:51:38

FORMAT: master-tb-prod-C
REVISION: H
DATE: 2018/01/18

Flow Chart


1
1.0 Planning
2
2.0 Receiving
3
3.0 Material Handling
4
4.0 Tool Setup
5
5.0 Process Setup
6
6.0 Molding Production
7
7.0 Packaging flow
8
8.0 Equipment Maintenance
9
9.0 Tool Maintenance
10
10.0 Material Handling

Prototype Pre-Launch Production [X
Key Contact: Todd Krofta Phone: 402-458-8842
Supplier/Plant: Molex Lincoln/Upland Supplier Code:

Control Plan Number: MWCP001
Part Number: MWCP001 :
Date (Orig): 29-Jan-1997 Date (Rev.): 22-Sep-2015

Cust. Eng. Apprvl.: Date:
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Supplier/Plant Apprvl: Craig Wollmann Date: 06-Jan -2015
Quality Apprvl: Todd Krofta Date: 06-Jan-2015
Eng. Apprvl: Date:

Control Plan

Core Team Members: Craig` Wollmann; Jeremy Olson; Ryan Lang; Todd Krofta; Kyle Gregory; Jeff Gardner

Process Name	Process Step	Machine, Device, Jig, Tools for Mfg.	No.	Product	Process	Special Char. Class	Product/Process Specification/ Tolerance	Evaluation/ Measurement Technique	Sample		Control Method	Reaction Plan
									Size	Freq.		
1.0 Planning	Planner reviews SAP orders, schedules, and releases work orders	N/A			Process Step		Timely production work order per SAP system and plant					
2.0 Receiving	Receive raw material into plant 3104	N/A	Per MWSAP-M009 Work Instruction	Material Specifications	Material Certification		Per Raw material Specifications	Material Certification Validation	1	per received material lot	Conformance to specification, record in SAP	Impound material and contact QE per MWSAP-M009 and disposition per MHMW112
	Store raw material in ASRS	N/A	Per MHMW143 Work Instruction		Storing Material to ASRS		Per SAP/ESKAY systems	N/A	1	Per Contain er	Conform to process requirements	Impound material and contact QE per MWSAP-M009 and disposition per MHMW112
3.0 Material Handling	Pull raw material	N/A	Per MHMW116 Work Instruction				Verify correct material to manfacturing work order	SAP Zlot transaction	1 per contain er	Start up and during run, and material changes	Scanning bar code labels and Zlot	Hold material in ASRS,/ QC Hold area for disposition per MHMW112, Get new material, notify production for product quarantine per CW031
	Material loaded into portable system	Portable material handling system, material dryers	Per MHMW116 Work Instruction		Blending and Drying		Per MHMW123, MHMW127, MHMW116, and MHMW124, work instructions	Visual, QC, or Operator inspection, thermocouple timer and dewpoint reader, material saver mode	1	Per containe r	Conformance to work instruction, e-dart monitoring, moisture analyzer, and inspection standards	Reblend, redry, or Impound material and contact QE per MSWAP-M009, notify production for product quarantine per CW031
	Load material	Central	Per MHMW116		Blending and		Per MHMW123,	Visual, QC, or	1	Continu	Conformance to work instruction, e-dart	Reblend, redry, or Impound material

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									Size	Freq.		
	into central system	material handling system, material dryers	Work Instruction		Drying		MHMW127,and MHMW116, work instructions	Operator inspection, thermocouple timer and dewpoint reader, material saver mode		ous system or per containe r	monitoring, moisture analyzer, and inspection standards	and contact QE per MSWAP-M009, notify production for product quarantine per CW031
	Grinder Set-up	Material Grinders	Per MHMW117 Work Instruction		Grinding		Per MHMW117 work instructions	Visual	1	Continu ous system or per containe r	Conformance to work instruction, e-dart monitoring, moisture analyzer, and inspection standards	Impound material and contact QE per MSWAP-M009, disposition per MHMW112, notify production for product quarantine per CW031
4.0 Tool Setup	Select tool for set -up in shop floor				Process Step						N/A	N/A
	Review previous submission sheet and shop floor continuation journal				Process Step						N/A	N/A
	Complete tool repair or PM.				Process Step						N/A	N/A
	Complete tool Set -up.	Mold per specific EDP	Per TW101 Work Instruction	Correct Setup	Priority List		Per tool specific work instructions (mold number), product prints, and mold prints	Visual	1	Per setup	Conformance to work instructions, product prints, and mold records, record on submission sheets	Re-setup and record, notify production for product quarantine per CW031
5.0 Process Setup	Hang mold, set up support equipment and print Labels	Molding press per work order	Per MW005 Work Instruction	Correct Setup			Per process sheet	Visual	1	Per setup	Conformance to work instructions, product prints, and mold records, record on submission sheets	Re-setup and record, notify production for product quarantine per CW031

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									Size	Freq.		
		and process sheet or optimization book										
	Process set-up	Molding press per work order and process sheet or optimization book.	Per MW036 Work Instruction	Correct Setup	Pressures Temperatures, Time Positions		Per process sheet	Pressure gauges, Thermo-couples, Timers, Location of switches, on individual molding press; edart template per mold	1	Setup and process change	Compare to inspection std and submission sheet, record changes on submission sheet. Operator to verify material status with material handler.	Adjust process parameters if process problem, notify maintenance or tool room for other problems; notify production for product quarantine per CW031
	Operator set-up inspection		Per MW005 Work Instruction	SAP inspection operation 005			SAP inspection operation 005	All gauges, visuals and functionals per SAP	1 shot	Setup	Compare with specifications in SAP, record on submission sheet and in SAP	Adjust process parameters if process problem, notify maintenance or tool room for other problems; notify production for product quarantine per CW031
6.0 Molding Production	QC set-up inspection		Per CW005 Work Instruction	Setup inspect characteristics per SAP operation 010 or 020			SAP inspection operation 010 or 020	All gauges, visuals and functionals per SAP.	2 shots, one for functionals, one for dimensions	Setup or upon submission after each rejection	Compare with specifications in SAP. Record on submission sheet, SAP, and setup SPC chart if applicable	Reject process, record on submission sheet, notify Operator, product quarantine per CW031
	Operator in process		Per MW016 Work	Gage and visual product			Special gages per edp	Visual and special gages	1 shot	Prior to stampin	Compare with specifications in SAP.	Reject process, record on

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									Size	Freq.		
	inspection		Instruction				operation 005 inspection characteristics			g labels		submission sheet, notify Operator, product quarantine per CW031
	QC in process inspection		Per CW003 Work Instruction	Daily inspection characteristics per SAP operation 020			SAP inspection operation 020	All gauges, visuals and functionals per SAP	1	Every press once a day while running	Compare with specifications in SAP, record in SAP.	Reject process, record on submission sheet, notify Operator, product quarantine per CW031
	Confirmations		Per CW007 Work Instruction	Critical functional attributes; Verify labels and packaging			0 defects	Visual	1	When required by SAP	Compare with specifications in SAP, record in SAP.	Reject process, record on submission sheet, notify Operator, product quarantine per CW031
	Submit to QC for EOR or Continuation Inspection and complete FGA if needed (Operation 0040 and 0010)		Per CW007 Work Instruction	Critical functional attributes; short shots and broken inserts			0 defects	Per Work Instructions	1 shot	End of work order	Visual inspection, do EOR operation 0040 in SAP	Reject process, record on submission sheet, notify Operator, product quarantine per CW031
	Annual Layout Review		Per applicable WI	Layout to customer dwg			As applicable	Submission to metrology	1 shot	Yearly	Layout disposition	Appropriate corrective actions such as molding process validation or tool refurbishment or repair.
7.0 Packaging flow	Package and confirm packed SPQ in SAP and perform FGA as needed		Per Mii Work Instruction and BOM	Correct package configuration			Per EDP specific work instructions	Visual and weigh count	1	100%	Visual Inspection and conformance to work instructions	Report to QC, QC Tech or QE and Operator, product quarantine per CW031

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	Off line sorting											
8.0 Equipment Maintenance	Planned and Unplanned Maintenance		Per Applicable Equipment Work Instruction	Correct times, pressures, and temperatures	Press maintenance history data, SAP PM modules input, press type		Per work instructions and press manuals.	Pressure gauges, Thermo-couples, Timers	1	Per SAP maintainance work order.	Correct times, pressures, and temperatures	Re-do maintenance repair, or preventive maintenance, notify Operator, product quarantine per CW031
9.0 Tool Maintenance	Planned and Unplanned Maintenance	Grinders, Mills, EDMs, Sonic Cleaning, Bathes, Measurement Devices, Time Systems	Per TW101, TW102, and TW108 work Instructions	Correct tool setup, tool repair or PM clean	Shop floor priority list		Per tool work instruct ons (mold number), product prints and mold prints	Visual or per appropriate measuring device	per Tool	PM schedule per continuations master schedule or repair as needed	SFC PM Flag, conformance to work instructions, product prints and mold prints, record or submission sheet	Re-do maintenance repair, or preventive maintenance, notify Operator, product quarantine per CW031
10.0 Material Handling	Breakdown material setup and return material to inventory	Material Dryers, Grinders	Per MHMW110 Work Instruction	Correct material	Store material in Eskay and cleaning		Per WI	Visual by Material Handler	Container	End of work order or prior to new set up	Visual Inspection	Re-do tear down, notify Operator, product quarantine per CW031

molex

Celanese

MOLEX INC.
700 UPLAND
LINCOLN NE 68521
USA

The Verst Group
Ticona Polymers
1100 Burlington Pike
FLORENCE KY 41042
USA

Type 4 Certificate of Analysis

CELANEX 3300-2 ED3002 BLACK M0

Customer Part No.:	0899920268	**Cert Issue Date:**	09 Jan 2022
Formula No.:	3300-2	**Qty Shipped:**	2,000.000 KG
Catalog:	20003905	**Order Item /date:**	2534878 10 / 31 Aug 2021
Color No.:	ED3002	**Delivery item/date:**	87368660 900001 / 12 Jan 2022
Produced at:	Florence, KY, USA	**Account #:**	2066402
		Customer PO No.:	1007957462
		Rail car:	See Senders Inst.

Batch 0001297674

In reference to the above, this is to advise you that this is a standard product and meets the following requirements:

SPECIFICATIONS: GMP.PBT.010

BATCH RELEASE DATA		UoM	Value	Limit
Date when Batch Was Produced			20191230	
Ash Content		%(m)	29.87	28.00 - 32.00
Melt Flow Rate (MFR)	(ISO 1133-1, ASTM D1238)	g/10min	18.10	12.00 - 23.00

ANNUAL TESTS (REVISED ON)	UoM	Value	Limit
Density (14 Feb 2021)	g/cm³	1.535	1.500 - 1.560
Melt Point @ 10 deg/min (14 Feb 2021)	°C	224.6	221.0 - 231.0
DTUL @ 1.8MPa (14 Feb 2021)	°C	207.0	min. 190.0
Flexural modulus (14 Feb 2021)	MPa	9736	min. 8400
Izod Notched Impact Strength (14 Feb 2021)	kJ/m²	9.55	min. 6.40
Tensile Stress at break (14 Feb 2021)	MPa	137.8	min. 116.0

COMMENTS
FOR USE WITH HB6086 AND HB6087

These test data are determined based on standard ISO and/or ASTM testing procedures.

Polyester Global Business Line

If you have questions regarding this letter, please call your Customer Service Team at 800-526-4960.

Idemitsu Chemicals U.S.A. Corporation

3000 Town Center, Suite 2820,,Southfield,MI 48075 USA,
TEL: 248-355-9590 FAX: 248-355-9330

Certificate of Analysis

To whom it may concern
We hereby certify that the following commodity has been tested by us and its quality corresponds to the description as mentioned below.

Product Name/Grade/Color No./Package	Xarec N WA 7030-02 CJ781101 Stone Gray		
Lot No.	KJ2001QCJ1	**Lot Size**	2,220.000 kg
Customer Part No.	899921451	**Delivery Date**	02/22/2022
PO No.	1008736033	**Sales Order**	1100014984
Customer Name	Molex		

Properties	Testing Method	Unit	Specification	Test Result
Ash Content	ISO 3451-1A	%	28.00 - 32.00	30.70
Tensile Strength, Break	ISO 527,	MPa	> 150.00	170.00
Tensile Elongation,Break	ISO 527,	%	> 2.20	2.70
Melt Viscosity T5 , 400sec-1	DOWN 101821	Pascal sec	108.00 - 224.00	133.00
Melt Viscosity T10 , 400sec-1	DOWN 101821	Pascal sec	68.00 - 199.00	108.00

Idemitsu Chemicals U.S.A. Corporation
Date: 02/16/2022

Ryosuke Kondo

Authorized Signature(s)