FINEHOPE
FREE
DMF/ A report
3D Design
Mould
Product Inspection Standard Setting
Free Product Inspection Standard Setting: In addition to the usual quantification of product physical properties and appearance standards, we will add REACH, RoHS, FDA, CA-65, or CFC Free to the standards according to customer needs.
Free Mould Opening: Large order quantity with mould cost free.
Free 3D Design: Finehope help customer design the desired product or modify the design for free.
Free DFM/A Report: Finehope will show details and solutions of manufacturability and assemblability through PPT to help customers reduce trouble.

Finehope

20 Years
Source Factory

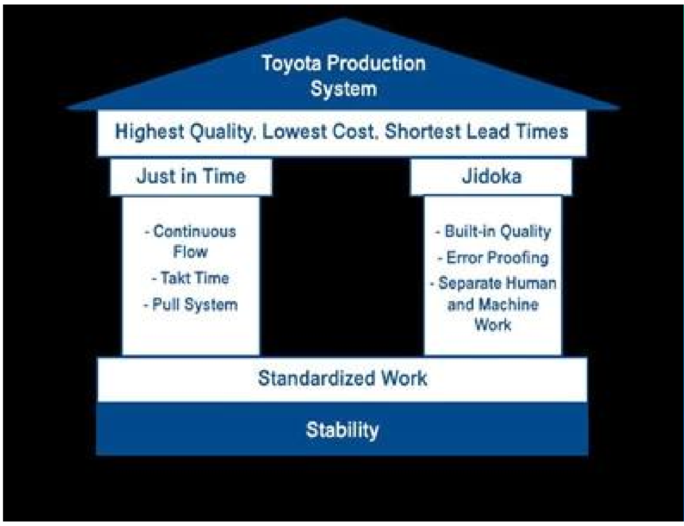
Support Online Custom

Polyurethane New Material Solutions

Finehope □ 2003 □□□□□□□ ISO 9001 □□□

IATF16949 □□□

Finehope □□□□□□□□□□□□□□□□□□□□□□□□□□ Finehope□2021□□□□IATF16949□□□□□□□□□□□50□□□□□□□□□□□□□□□□□□□



[illegible]

Finehope [illegible] [illegible]

[Finehope [illegible]] Finehope[illegible]

[illegible]

1. [illegible]Finehope[illegible]

Finehope[illegible]PU[illegible]PU[illegible]CAT[illegible]FIAT[illegible]TVH[illegible]STIGA[illegible]12[illegible]

2[illegible]Finehope[illegible]

1[illegible]
2[illegible]
3) Finehope [illegible]

□□□□□□□□
4□□□□□□□□□□□
5□□□□□□□□□□□□□□
6□□□□□□□PU□□□□□□□□□□
7□Finehope□□□□□□□□□□□□□□

About us

OUR
SAMPLE
ROOM

Our Certification

□□□□□□□□□□

Finehope□2019□□□□□□“□□□□□□□□□□□”□□□□□□□□Finehope□□Finehope□□□□□□□□□□□□□□□□□□

□□□□□□□□□□□□□□□□□□□□□□□□

Finehope□2020□□□□□“□□□□□□□□□□□□□□□□□”□“□□□□□□□□□□□”□□□□□□□□□□□□□□□□□□□

授予：飞虎（厦门）新材料科技股份有限公司
2019-2020年度
厦门市成长型中小微企业
Xiamen Growth-oriented Micro, Small & Medium Enterprises
厦门市工业和信息化局
厦门市中小企业管理办公室
二〇一九年五月

授予：飞虎（厦门）新材料科技股份有限公司
2020-2022年度
厦门市专精特新中小企业
Xiamen Specialized, Refining, Differentiate, Innovative SMEs
厦门市工业和信息化局
二〇二〇年八月

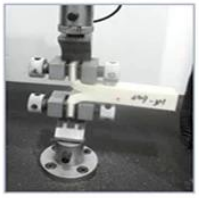
厦门市科技小巨人领军企业
Xiamen Science And Technology Little Giant Leading Enterprise
Certificate

Finehope□□□

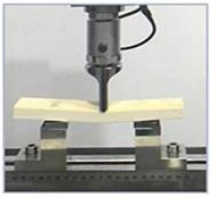
Quality Assurance

UNIVERSAL TESTING MACHINE(UTM)

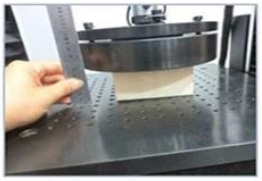
Tensile Test

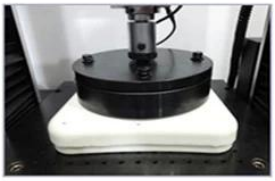


Tear Resistance Test



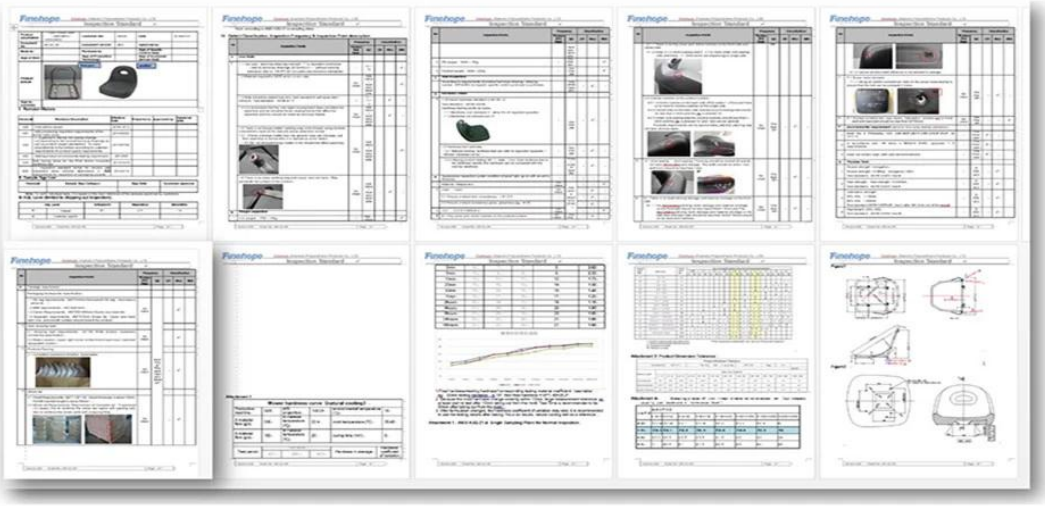
Compressive Strength



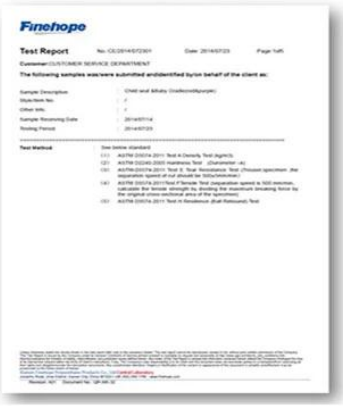


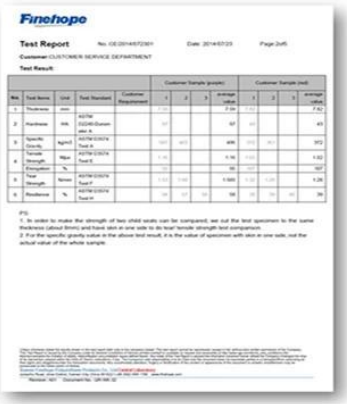
Indentation Force Deflection

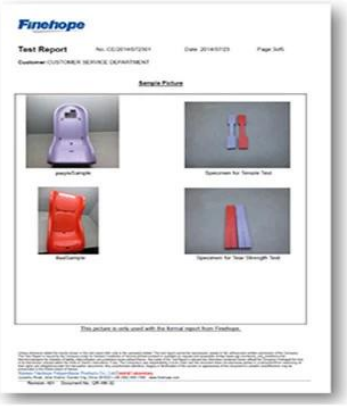
INSPECTION STANDARD



MATERIAL PERFORMANCE TEST REPORT







Advanced Product Quality Planning

Date: 01-Oct-17

Customer	[redacted]
Location	New Zealand
Customer Code	G1019
Risk Assessment	
New: Site ☐ Technology ☐ Process ☐	
Other Risks: ☐	

Project	[redacted]
Finehope Contact	Wendy Yang
Part No.	[redacted]
Part Name	G1019Y04
Change Level/Date	
User Plant(s)	Finehope

Core Team Members	Company/Title	Phone/Fax/E-Mail
Tiger Xu	G.M.	[redacted]
Yibin Lim	Vice G.M.	[redacted]
Cindy Wu	Sales Manager	cindy@finehope.com
Liangquan Wan	Project Manager	
Wendy Yang	Sales	wendy@finehope.com

Build Level	Material Required Date	Quantity	No. Concurred SRCs	No. Concurred Majors		
Product Design and Develop	21-Jun-21	10				
Product and Process Validat	25-Jun-21	15				

APQP Deliverable	Finehope APQP Reference Only	G / Y / R	Project Need Date	Supplier Timing Date	Actual Closure Date	Supplier Lead Resp Initials	Finehope Acceptance Complete	Remarks or Assistance Required
AIAG APQP Phase 2 - Product Design and Development								
1. Project Timeline (Synchronized w/Production Time Plan	2030	G	20-Jun-21	21-Jun-21	21-Jun-21	22-Jun-21	23-Jun-21	/
2. Customer Inputs / Requirements	2030	G	23-Jun-21	24-Jun-21	24-Jun-21	25-Jun-21	26-Jun-21	/
3. Warranty & Quality Mitigation Plan	2030	G	24-Jun-21	25-Jun-21	25-Jun-21	26-Jun-21	27-Jun-21	/
4. Customer Specific Requirements	2050	G	25-Jun-21	26-Jun-21	26-Jun-21	27-Jun-21	28-Jun-21	/
5. Design FMEA	2080	G	26-Jun-21	27-Jun-21	27-Jun-21	28-Jun-21	29-Jun-21	/
6. Preliminary Bill of Materials (BOM)	2090	G	27-Jun-21	28-Jun-21	28-Jun-21	29-Jun-21	30-Jun-21	/
7. Prototype Control Plans	2110	G	28-Jun-21	29-Jun-21	29-Jun-21	30-Jun-21	1-Jul-21	/
8. Prototype Builds	2110	G	29-Jun-21	30-Jun-21	30-Jun-21	1-Jul-21	2-Jul-21	/
9. Design Verification Plan & Report (DVP&R)	2120	G	30-Jun-21	1-Jul-21	1-Jul-21	2-Jul-21	3-Jul-21	/
10. Design / Process Review	2130	G	1-Jul-21	2-Jul-21	2-Jul-21	3-Jul-21	4-Jul-21	/
11. Team Feasibility Commitment	2130	G	2-Jul-21	3-Jul-21	3-Jul-21	4-Jul-21	5-Jul-21	/
12. APQP Status Sub-Supplier	2130	G	3-Jul-21	4-Jul-21	4-Jul-21	5-Jul-21	6-Jul-21	/
13. Production Drawing & Specifications	2220	G	4-Jul-21	5-Jul-21	5-Jul-21	6-Jul-21	7-Jul-21	/
14. Subcontractor Purchase Orders (Customer Tooling	2250	G	5-Jul-21	6-Jul-21	6-Jul-21	7-Jul-21	8-Jul-21	/
15. Facilities, Equipment, Tools and Gages	2260	G	6-Jul-21	7-Jul-21	7-Jul-21	8-Jul-21	9-Jul-21	/
AIAG APQP Phase 3 - Process Design and Development								
16. Product/Process and Quality System Review	3030	G	9-Jul-21	10-Jul-21	10-Jul-21	10-Jul-21	11-Jul-21	/
17. Manufacturing Process Flow Chart	3040	G	11-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	13-Jul-21	/
18. Process FMEA	3100	G	13-Jul-21	14-Jul-21	14-Jul-21	14-Jul-21	15-Jul-21	/
19. Pre-Launch Control Plan	3110	G	15-Jul-21	16-Jul-21	16-Jul-21	16-Jul-21	17-Jul-21	/
20. Process Work Instructions	3120	G	17-Jul-21	18-Jul-21	18-Jul-21	18-Jul-21	19-Jul-21	/
21. Measurement Systems Evaluation	3130	G	19-Jul-21	20-Jul-21	20-Jul-21	20-Jul-21	21-Jul-21	/
22. Packaging Specifications & Approvals	3160	G	21-Jul-21	22-Jul-21	22-Jul-21	22-Jul-21	23-Jul-21	/
23. Manufacturing Team Training	3170	G	23-Jul-21	24-Jul-21	24-Jul-21	24-Jul-21	25-Jul-21	/
AIAG APQP Phase 4 - Product and Process Validation								
24. Subcontractor PPAP Approval	4005	G	9-Jul-21	10-Jul-21	10-Jul-21	10-Jul-21	11-Jul-21	/
25. Production Control Plan	4008	G	11-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	13-Jul-21	/
26. Production Reasness Review (PRR)	4009	G	13-Jul-21	14-Jul-21	14-Jul-21	14-Jul-21	15-Jul-21	/
27. Production Trial Run (PTR)	4010	G	15-Jul-21	16-Jul-21	16-Jul-21	16-Jul-21	17-Jul-21	/
28. Process Capability Studies	4030	G	17-Jul-21	18-Jul-21	18-Jul-21	18-Jul-21	19-Jul-21	/
29. Production Validation Plan & Report (PVP&R)	4090	G	19-Jul-21	20-Jul-21	20-Jul-21	20-Jul-21	21-Jul-21	/
30. Production Part Approval (PPAP)	4110	G	21-Jul-21	22-Jul-21	22-Jul-21	22-Jul-21	23-Jul-21	/
AIAG APQP Phase 5 - Feedback, Assessment and Corrective Action								
31. Initial Production Shipment	5005	G	28-Jul-21	30-Jul-21	30-Jul-21	30-Jul-21	31-Jul-21	/
32. Production Ramp-up Plan	5005	G	31-Jul-21	2-Aug-21	2-Aug-21	2-Aug-21	3-Aug-21	/
33. Full Production Date	5005	G	5-Aug-21	7-Aug-21	7-Aug-21	7-Aug-21	8-Aug-21	/
34. Conduct Lessons Learned	5005	G	8-Aug-21	10-Aug-21	10-Aug-21	10-Aug-21	11-Aug-21	/

Design Failure Mode and Effects Analysis

(Design FMEA)

FMEA No.: DFMEA-001

Page: page 1, totally 3 pages

PrOject Name: Injection moulding | Procedure responsible dept: Production Dept | Made: Xiaodong Qiu

Model year/vehicle types: CRV | Soybean Milk Maker | Important date: Nov.10th.2015 | FMEA Date: Nov.10th.2015

People participated: Develop dept:Gaolin Wei Sales:Haiyan Wu PC:Jiannan Yan Technology Dept:Jianyu Zhou Purchaser:Yuanyuan Gou Production dept:Shuwen Dong QC:Bingxiang Zheng

procedure function requirements	Potential failure mode	Potential effects analysis	severity (S)	grade	potential causes/mechanisms of failure	frequency (O)	Current prevention process control	Current detection process control	detectivity (D)	RPN	recommended measures	Responsibility and target completion date	action results				
													Action Taken	severity (S)	frequency (O)	difficult to check (D)	RPN
scyphus	size changes of handle	handle cover fall off	6	A	PP size change	6	By adjusting the product of the injection molding process, and measure or test the clasp of product size	measure and test product size	3	108	Add the number of button bit in handle design, in order to keep the connection strength	Xiaodong Qiu 2015/08/25	By adjusting the product of the injection molding process, and measure or test product size	6	1	1	6
scyphus	warpage of scyphus handle	Poor appearance break	4	C	high handle wall	6	Add the stiffener to handle wall to prevent deformation	measure and test product size	2	48	If this problem appears, make improvement by Adding the stiffener	Xiaodong Qiu 2015/09/30	Add the stiffener to handle wall to prevent deformation	4	2	1	8
scyphus	Deformation of cup-mouth	Micro switch without power	8	A	PP material deformation, Resulting in a perpendicular direction to connect the cup and handle inward deformation, So that both sides of the tilt, the micro switch column opposite sink, and	3	Adjust the injection molding process, to prevent extrusion	measure and test cup-mouth size	3	72	in the cup packing control the direction of the lateral dimension of no force, stipulate the way of packing	Xiaodong Qiu 2015/09/10	stipulate the cup use egg cell methods to put the packing which do not squeeze each other	8	1	3	24

H-R-P-001-1

Process Failure Mode and Effects Analysis

(PFMEA)

潜在失效模式和后果分析

FMEA No.FMEA20150325-01

Page:3

Item:Welding improvement | Process Responsibilities: Production welding group | Maker:Wenrong-Huang

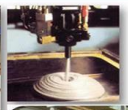
Model year/project | Key Dates | FMEA Date (Original):2015.03.25

Item / Request	Potential failure mode	Potential consequences of failure modes	Severity	Grade	Potential causes of failure	Occurrence degree	Current process control and Prevention	Current process control detection	Detection rate	RPN	Suggest measures	Responsibility and target completion date	Measure results				
													Measures and effective date	Severity	Incidence rate	Detection degree	RPN
Clamping (clamping required is in place, no missing or wrong loaded)	Clamping is not in place	SizeNG	6	B	●Staff negligence ●Fixture for bad	4	●Make the operation standard book ●Make maintenance standards, regular maintenance	●Visual inspection ●Finished 100% full inspection	6	144	●Pre-service training of staff ●Regular maintenance			6	3	4	72
		Welding error, leak welding, welding deviation, affect the assembly or use function	8	A	●Staff negligence 人员作业疏忽 ●Fixture for bad 夹具作动不良 ●Fixture inaccurate 夹具定位不准确	4	●Make the operation standard book ●Make maintenance standards, regular maintenance ●Regular checking of fixture	Visual inspection	6	192	●Pre-service training of staff ●Regular maintenance ●Make inspection checklist for fixture			8	3	4	96
	Attachments missing	Affect product strength or influence the assembly	8	A	Staff negligence	3	Make the operation standard book	Visual inspection	4	96	Final inspection personnel do 100% full inspection for each bead with mark			8	2	2	32
	Attachment error	Influence assembly	7	A	No mistake proofing fixture	3	Make the operation standard book	Visual inspection	6	126	●Increase the mistake proofing devices ●Inspection for final inspection tools			7	2	4	56
	False welding	Lack of strength, affect the use of function	9	A	Current, voltage, welding angle, speed setting is not reasonable	4	●Welding process guidance making ●Condition confirmation check ●Confirm the failure test on a regular basis.	Destructive testing	8	288	After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed.			9	3	4	108

Production Device

KRAUSS MAFFEI

Finehope has successively introduced many of the world's most advanced German KraussMaffei high-pressure injection machines since 2010.



Reaction Injection Molding (RIM)
High Pressure Machine
KRAUSS MAFFEI
Made in Germany!

Self-invented fully automatic production line

Finehope has independently developed a number of fully automatic PU injection production lines since 2010. These production lines reduce production costs and meet customer delivery requirements.

Welding Robots

Since 2016, Finehope has continued to purchase welding robots and automatic fixture turntables for welding metal parts. The independent processing of accessories saves the waiting time and procurement cost of outsourcing processing.

CNC Machine

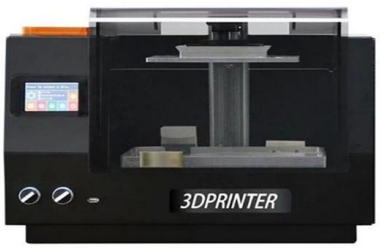
Finehope has continued to purchase CNC equipment since 2016. CNC (Computer Numerically Controlled) machining is a manufacturing process in which preprogrammed computer software dictates the movement of factory tools and machinery. Using this type of machine versus manual machining can result in improved accuracy, increased production speeds, enhanced safety, increased efficiency and most importantly, help customers save costs and improve product quality.

Mould Release Agent Painting Robot

Since 2019, Finehope has purchased robots for spraying water-based release agents to improve the working environment, improve spraying quality and material utilization, and reduce labor costs.

3D printer

Finehope started to purchase 3D printers in 2015. 3D printing can realize rapid proofing of new product prototypes and templates for resin molds, and can also be used for faster and cheaper small batch production.



Social Responsibility

- **Audited by Sedex**

(Supplier business ethics information exchange)

Labor standard · health and safety · Environmental protection · Business ethics practice

- **Public-spirited**

Voluntary tree planting after Super Typhoon Meranti in 2016

A VALUE-BASED COMPANY