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.

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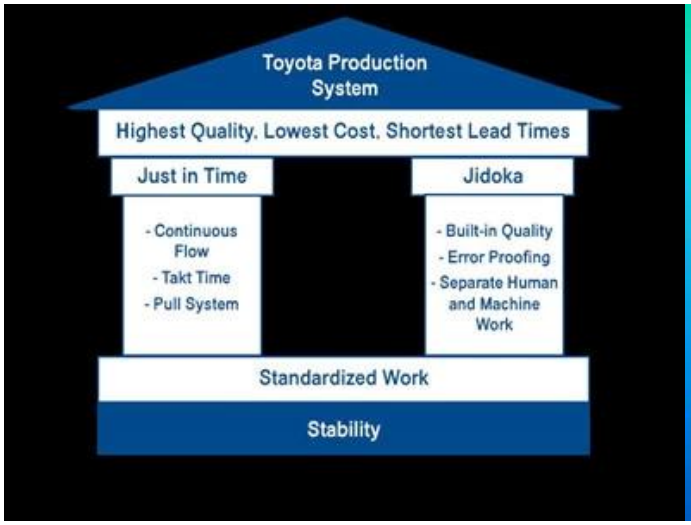

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授予：飞虎（厦门）新材料科技股份有限公司
2019-2020年度
厦门市成长型中小微企业
Xiamen Growth-oriented Micro, Small & Medium Enterprises

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

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

Fiscal Year 2020
CERTIFICATION OF REGISTRATION

SAQM

证书
CERTIFICATE

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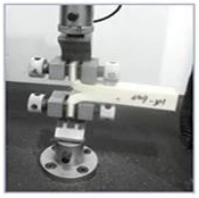
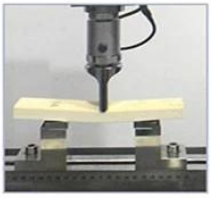
Quality Assurance

UNIVERSAL TESTING MACHINE(UTM)

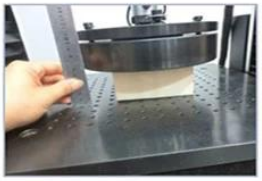
Tensile Test

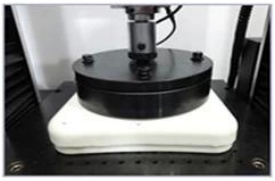


Tear Resistance Test



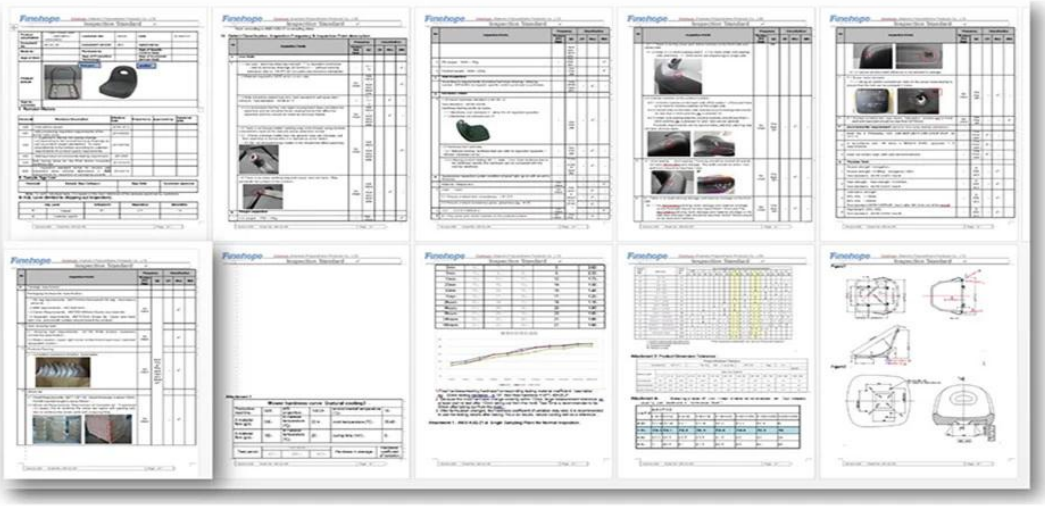
Compressive Strength



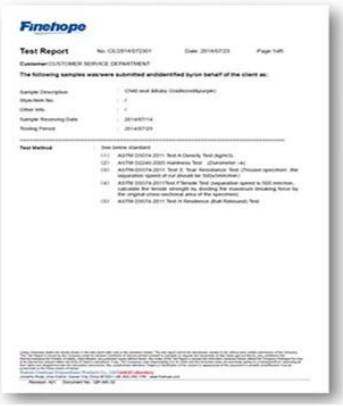


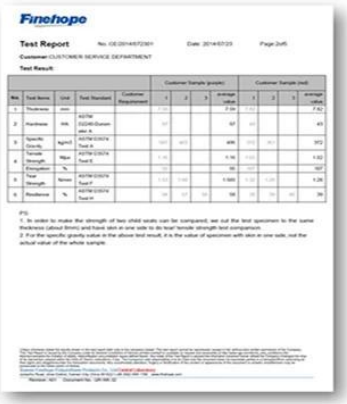
Indentation Force Deflection

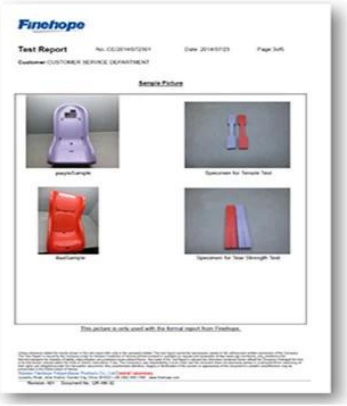
INSPECTION STANDARD



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

P0ject 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

项目:焊接改善

Process Responsibilities: Production welding group

过程职责：生产部焊接组

Maker:Wenrong-Huang

Model year/project

型号年/项目

Key Dates

关键日期

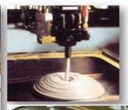
FMEA Date (Original):2015.03.25

Item 项目 / Request 问题	Potential failure mode 潜在失效模式	Potential consequences of failure modes 失效的模式潜在后果	Severity 严重度	Grade 等级	Potential causes of failure 失效的潜在原因	Occurrence degree 发生度	Current process control and Prevention 现行过程控制预防	Current process control detection 现行过程控制检测	Detection rate 探测率	RPN	Suggest measures 建议措施	Responsibility and target completion date 职责及目标完成日期	Measure results 措施结果					
													Measures and effective date 采取的措施	Severity 严重度	Incidence rate 发生率	Detection degree 探测度	RPN
Clamping (clamping required is in place, no missing or wrong loaded) 夹具（夹具需到位，无漏装、错装）	Clamping is not in place 夹具不到位	Size/NG 尺寸NG	6	B	●Staff negligence 人员作业疏忽 ●Fixture for bad 夹具存放不良	4	●Make the operation standard book 制定作业标准书 ● Make maintenance standards, regular maintenance 制定保养基准，定期保养，维护	●Visual inspection 目视检测 ● Finished 100% full inspection 完检100%全检	6	144	●Pre-service training of staff 人员岗前培训 ● Regular maintenance 工装定期维护			6	3	4	72
		Welding error, leak welding, welding deviation, affect the assembly or use function 焊接错误，漏焊，焊接偏移，影响装配或使用功能	8	A	●Staff negligence 人员作业疏忽 ●Fixture for bad 夹具存放不良 ●Fixture inaccurate 夹具定位不准确	4	●Make the operation standard book 制定作业标准书 ●Make maintenance standards, regular maintenance 制定保养基准，定期保养，维护 ●Regular checking of fixture 对夹具定期检查	Visual inspection 目视检测	6	192	●Pre-service training of staff 人员岗前培训 ●Regular maintenance 工装定期维护 ●Make inspection checklist for fixture 制作夹具检查检查			8	3	4	96
	Attachments missing 附件漏装	Affect product strength or influence the assembly 影响产品强度或影响装配	8	A	Staff negligence 作业人员疏忽	3	Make the operation standard book 制定作业标准书	Visual inspection 目视检测	4	96	Final inspection personnel do 100% full inspection for each bead with mark 最终人员100%全检，并			8	2	2	32
	Attachment error 附件错错	Influence assembly 影响装配	7	A	No mistake proofing fixture 治具无防错	3	Make the operation standard book 制定作业标准书	Visual inspection 目视检测	6	126	●Increase the mistake proofing devices 增加防错装置 ●Inspection for final inspection tools 对检验员检查			7	2	4	56
	False welding 假焊	Lack of strength, affect the use of function 强度不足，影响使用功能	9	A	Current, voltage, welding angle, speed setting is not reasonable 电流，电压，焊接角度，速度设定不合理	4	●Welding process guidance making 制作焊接工艺指导书 ●Condition confirmation check 加工条件确认点检 ●Confirm the failure test on a regular basis.	Destructive testing 破坏试验检测	8	288	After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed. 在程序设定加工条件确认在程序设定加工条件确认			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

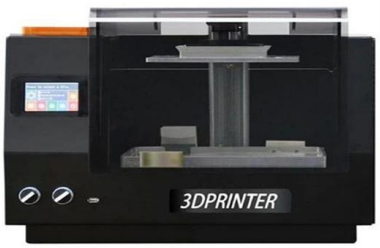
Finehope has continued to purchase CNC equipment since 2016. CNC (Computer Numerically Controlled) machining is a manufacturing process in which preprogrammed computer software dictates the movement of factory tools and machinery. Using this type of machine versus manual machining can result in improved 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