

**Finehope**

This product is customized for the customer, not for sale



# Finehope

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2003 ISO 9001

**IATF16949** Finehope 2021 IATF16949 50 Caterpillar SPC, MSA, FMEA, APQP PPAP 5 Caterpillar

## Our Advandages



PU 2002 Finehope PU Fortune 500

Finehope PU Fortune 500



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**4. Finehope 00 0 00 0000 00000 000000?**

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**5. PU 0000 0000 000000?**

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## About us





OUR  
SAMPLE  
ROOM





TEAM  
ACTIVITIES

## Our Certification



2019-2020

Finehope 2019 厦门市成长型中小微企业  
 Finehope 2019 厦门市成长型中小微企业  
 Finehope 2019 厦门市成长型中小微企业  
 Finehope 2019 厦门市成长型中小微企业

2020-2022

Finehope 2020 厦门市专精特新中小企业  
 Finehope 2020 厦门市专精特新中小企业  
 Finehope 2020 厦门市专精特新中小企业  
 Finehope 2020 厦门市专精特新中小企业

2019-2020

Finehope 2019 厦门市科技小巨人领军企业  
 Finehope 2019 厦门市科技小巨人领军企业  
 Finehope 2019 厦门市科技小巨人领军企业  
 Finehope 2019 厦门市科技小巨人领军企业



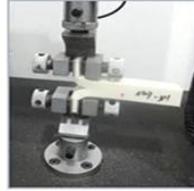
# Quality Assurance



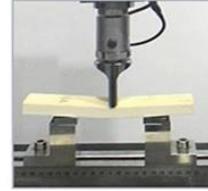
UNIVERSAL TESTING MACHINE(UTM)



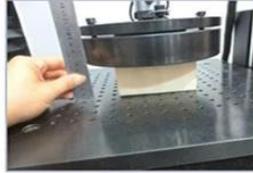
Tensile Test



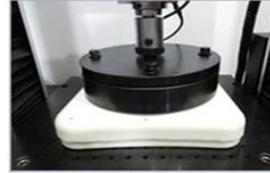
Tear Resistance Test



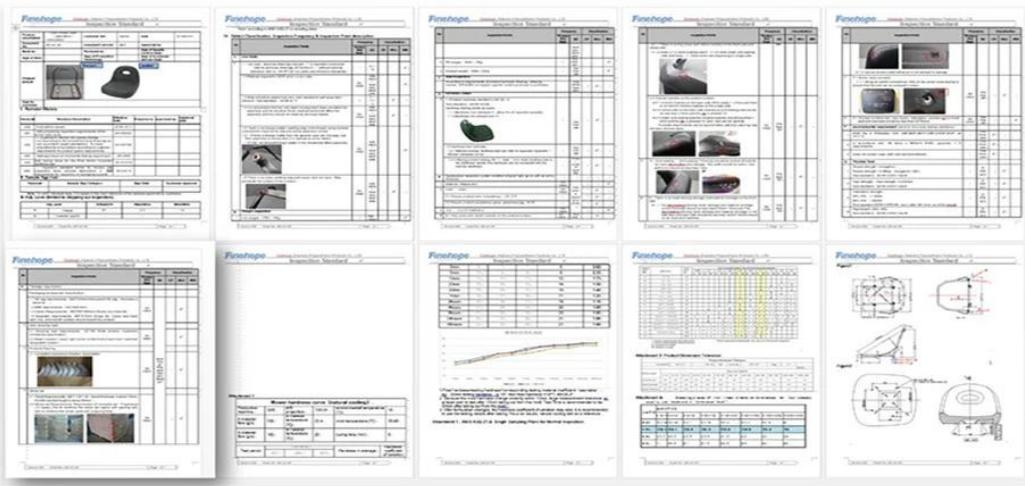
Compressive Strength



Indentation Force Deflection



## INSPECTION STANDARD



## MATERIAL PERFORMANCE TEST REPORT

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 1/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

The following samples were submitted and identified by/on behalf of the client as:

Sample Description: (Unit and Model (underdevelopment))  
 Material No.: 1  
 Other info.: 1  
 Sample Processing Date: 20140724  
 Working Process: 20140723

**Test Method**

- 001 ASTM D2034-2011 Test of Density, Test Agency
- 002 ASTM D2034-2011 Test of Density, Test Agency
- 003 ASTM D2034-2011 Test of Density, Test Agency
- 004 ASTM D2034-2011 Test of Density, Test Agency
- 005 ASTM D2034-2011 Test of Density, Test Agency
- 006 ASTM D2034-2011 Test of Density, Test Agency
- 007 ASTM D2034-2011 Test of Density, Test Agency
- 008 ASTM D2034-2011 Test of Density, Test Agency
- 009 ASTM D2034-2011 Test of Density, Test Agency
- 010 ASTM D2034-2011 Test of Density, Test Agency

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 2/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

**Test Result**

No.	Test Item	Unit	Test Standard	Customer Requirement	Customer Sample 1	Customer Sample 2	Customer Sample 3	Customer Sample 4	Customer Sample 5
1	Thickness	mm	ASTM D2034-2011	0.15	0.15	0.15	0.15	0.15	0.15
2	Thickness	mm	ASTM D2034-2011	0.15	0.15	0.15	0.15	0.15	0.15
3	Specific Gravity	g/cm <sup>3</sup>	ASTM D2034-2011	1.15	1.15	1.15	1.15	1.15	1.15
4	Tensile Strength	MPa	ASTM D2034-2011	1.15	1.15	1.15	1.15	1.15	1.15
5	Elongation	%	ASTM D2034-2011	1.15	1.15	1.15	1.15	1.15	1.15
6	Resilience	%	ASTM D2034-2011	1.15	1.15	1.15	1.15	1.15	1.15

FIG. 1. In order to make the strength of test pieces can be compared with the test specimens in the same thickness (about 1mm) and test data in our data in the test results strength test comparison.  
 2. For the specific gravity value in the above test result, it is the value of specimen with size in one side, not the actual value of the whole sample.

**Finehope**  
**Test Report** No. 00201457201 Date: 20140723 Page 3/4  
 Customer: CUSTOMER SERVICE DEPARTMENT

**Sample Photos**

These pictures is only used with the actual report from Finehope.

Customer	
Location	New Zealand
Customer Code	G1019
Risk Assessment	
New:	Site <input type="checkbox"/> Technology <input type="checkbox"/> Process <input type="checkbox"/>
Other Risks	<input type="checkbox"/>

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

Core Team Members	Company/Title	Phone/Fax/E-Mail
Tiger Xu	G.M.	
Yibin Lim	Vice G.M.	
Cindy Wu	Sales Manager	<a href="mailto:cindy@finehope.com">cindy@finehope.com</a>
Liangquan Wan	Project Manager	
Wendy Yang	Sales	<a href="mailto:wendy@finehope.com">wendy@finehope.com</a>

Build Level	Material Required Date	Quantity	No. Concurrent	
			SRs	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 Inits	Finehope Acceptance Complete	Remarks or Assistance Required
1. Project Timeline (Synchronized w/Production Time Plan)	2630	G	20-Jun-21	21-Jun-21	21-Jun-21	22-Jun-21	23-Jun-21	/
2. Customer Inputs / Requirements	2630	G	23-Jun-21	24-Jun-21	24-Jun-21	25-Jun-21	26-Jun-21	/
3. Warranty & Quality Mitigation Plan	2630	G	24-Jun-21	25-Jun-21	25-Jun-21	26-Jun-21	27-Jun-21	/
4. Customer Specific Requirements	2630	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)	2630	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)	2130	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)	2220	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	3630	G	9-Jul-21	10-Jul-21	10-Jul-21	10-Jul-21	11-Jul-21	/
17. Manufacturing Process Flow Chart	3540	G	11-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	13-Jul-21	/
18. Process FMEA	3190	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 Readiness 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 (PV&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  
Made: Xiaodong Qiu

Product Name: Injection moulding

Procedure responsible dept: Production Dept

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	detection (D)	RPN	recommended measures	Responsibility and target completion date	action results	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 球, 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

Maintainer:Wenrong-Huang

FMEA Date (Original):2015.03.25

Item:Welding Improvement

Process Responsibilities: Production welding group

Model year/project

Key Dates

Item 项目	Potential failure mode 潜在失效模式	Potential consequences of failure modes 失效后果/失效模式	Severity 严重度	Grade 等级	Potential causes of failure 失效原因/失效模式	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 检测率	RPN	Suggest measures 建议措施	Responsibility and target completion date 责任及完成日期	Measure results/测量结果				
													Measures and effective date 措施及有效日期	Severity 严重度	Incidence rate 发生率	Detection degree 检测度	RPN
Request 项目	Clamping is not in place 夹紧不到位	Welding error, leak, welding deviation, affect the assembly or use function 焊接错误、漏焊、焊接偏差, 影响装配或使用功能	8	B	Staff negligence 人员疏忽 ● Failure for bad 器具定位不准	4	● Make the operation standard book 制定作业标准书 ● Make maintenance standards, regular maintenance 制定保养标准, 定期保养、维护	● Visual inspection 目视检测 ● Finished 100% full inspection 全程100%全检	6	144	● Pre-service training of staff 岗前培训 ● Regular maintenance 工后定期维护		6	3	4	72	
Clamping (clamping required is in place, no missing or being loaded) 夹紧(夹紧要求到位, 无漏装、错装)	Clamping is not in place 夹紧不到位	Welding error, leak, welding deviation, affect the assembly or use function 焊接错误、漏焊、焊接偏差, 影响装配或使用功能	8	A	Staff negligence 人员疏忽 ● Failure for bad 器具定位不准 ● Failure inaccurate 器具定位不准	4	● Make the operation standard book 制定作业标准书 ● Make maintenance standards, regular maintenance 制定保养标准, 定期保养、维护 ● Regular checking of fixture 工装定期点检	Visual inspection 目视检测	6	192	● Pre-service training of staff 岗前培训 ● Regular maintenance 工后定期维护 ● Make inspection checklist for fixture 工装点检清单		8	3	4	96	
Attachments missing 附件缺失	Affect product strength or influence the assembly 影响产品强度或装配	Staff negligence 人员疏忽	8	A	Staff negligence 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 终检人员做100%全检, 并打点		8	2	2	32	
Attachments not enpor 附件未紧固	Influence assembly 影响装配	No mistake proofing fixture 无防错器具	7	A	No mistake proofing fixture 无防错器具	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 增加防错器具 ● Inspection for final inspection tools 终检工具点检		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	Current, voltage, welding angle, speed setting is not reasonable 电流、电压、焊接角度、速度设定不合理	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 制定焊接工艺指导书 ● Condition confirmation check 工装点检清单 ● Confirm the failure test on a regular basis 定期开展失效试验	Destructive testing 破坏性试验	8	288	After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed. 工艺参数设定完毕并确认		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 P-U 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 pre-programmed 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.



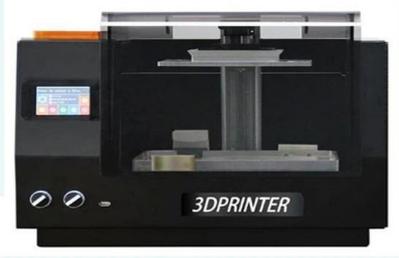
## Mould Release Agent Painting Robot



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

CUSTOMER FIRST

TEAMWORK

EMBRACE CHANGES

PASSION

INTEGRITY

COMMITMENT

