PRODUCT PARAMETERS

Name: Handrail access ladder

Material: PP polypropylene

Color: sky blue / red / blue purple

Size: 36.5 × 13.6 × 65cm

Applicable age: 1-7 years old

Net weight of goods: 2.015kg

Bearing weight: 75.5kg

Easy transition from baby to adult toilet
Suitable for boys and girls aged 1–10

Stable and anti–skid,
clean as soon as you
flush

Finehope自**2003**年起连续获得**ISO 9001**证书。

IATF16949认证:

中国聚氨酯硬质泡沫建筑材料供应商 Finehope于2021年通过了IATF16949汽车质量管理体系认证。50多个文件保证了新产品开发进度、试制和量产产品的质量、交货时间和成本。

自2007年Finehope与卡特彼勒合作以来，Finehope在新产品导入中采用了汽车质量管理体系，使用了SPC、MSA、FMEA、APQP和PPAP五种工具，赢得了卡特彼勒高管的好评，并建立了长期的合作关系。迄今为止的长期合作伙伴关系。

Our Advandages

PU原材料研发能力

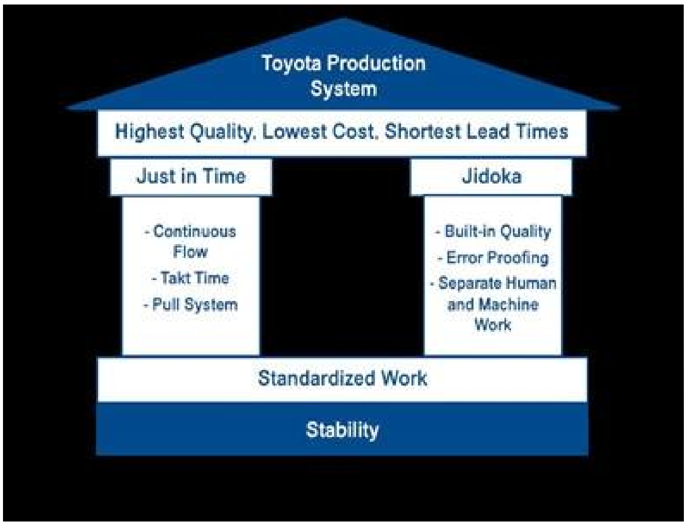
自2002年以来，Finehope一直致力于PU模压泡沫产品的设计和制造。自主研发的配方材料和稳定的生产能力是品质保证的基础。

Finehope可根据客户个性化产品的定制需求，如硬度、弹性、支撑、手感、密度、颜色等理化性能的要求，随时调整产品配方，并可做出符合配方要求的产品当然，好的配方还必须考虑最佳的性价比，对于新项目来说，PU配方的开发能力是保证产品开发质量、交货期和成本的关键条件。

自动化设备设计与制造能力

Finehope的自动化设备设计和制造能力在行业内是罕见的。通过参与新型PU注射混合设备的设计和生产线的自动化改造，确保在中国人口红利降低的竞争下而人工成本不断上升，生产效率也得以提高，人工和材料成本得以降低。此外，夹具、专用设备、自动化模具等关键设备的持续设计和制造能力也是Finehope在各方面处于领先地位的原因。

Finehope不断降低成本和创新产品的能力可以帮助客户带来更大的价值，因此是众多世界500强企业和行业领先企业可信赖的长期合作伙伴。



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客户和制造商。

4）精益生产管理模式。

5）帮助客户开发和设计新产品。

6）具有丰富的PU产品设计、加工经验。

7) Finehope是中国高新技术企业，拥有国内和国际发明专利技术和知识产权财产。

3、Finehope与国内同行有什么区别?

1）质量保证：先期质量策划（APQP）。

2）Finehope拥有丰富的服务国际大企业的经验。

3）拥有专业的聚氨酯材料科研团队。

4）具有生产设备和模具的自主设计、制造和创新能力。

5）拥有负责质量保证体系和质量控制的工程师团队。

4. Finehope与欧美同行有什么区别?

1）拥有完善、成熟的配套供应链。

2）降低模具成本。

3）开发设计能力效率高，流程时间短。

4）成本优势和良好的服务态度。

5、PU产品的应用有哪些?

汽车、工程机械、运动健身器材、医疗机械及日常家居用品等。

About us

OUR
SAMPLE
ROOM

Our Certification

厦门市成长型中小微企业

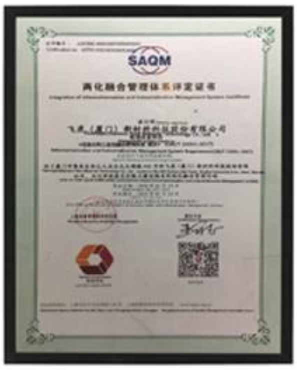
Finehope自2019年起连续被评为“厦门市成长型中小微企业”。这是厦门市政府根据Finehope的各项综合指标、增长模式、行业品牌实力、良好的企业信誉等进行评分的结果，颁发此证书。这是Finehope在全市数千家中小企业中脱颖而出的证明。

厦门市专精特新创新型中小企业

自2020年起，凡和普连续被评为“厦门市专精特异创新型中小企业”。“专精特异创新”是指主业突出、专业能力强、研发创新能力强、发展潜力大的中小企业。主要集中在新一代信息技术、高端装备制造、新能源、新材料、生物医药等中高端产业。政府强调并认可凡宏的“专精、专创新”是为了鼓励创新，实现专业化、改革化、专业化。

厦门市科技小巨人领军企业

自2019年起，Finehope入选厦门市科技小巨人领军企业。该证书由厦门市政府五部门联合颁发。评选标准重点关注新一代信息技术、高端装备、新材料、新能源、生物新医药、节能环保、海洋高新技术等战略性新兴产业。获此殊荣表明Finehope在新信息技术和新材料方面走在行业前列。



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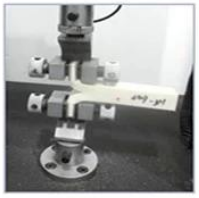
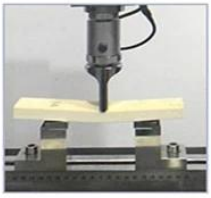
Quality Assurance

UNIVERSAL TESTING MACHINE(UTM)

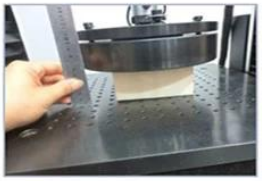
Tensile Test

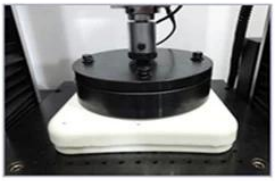


Tear Resistance Test



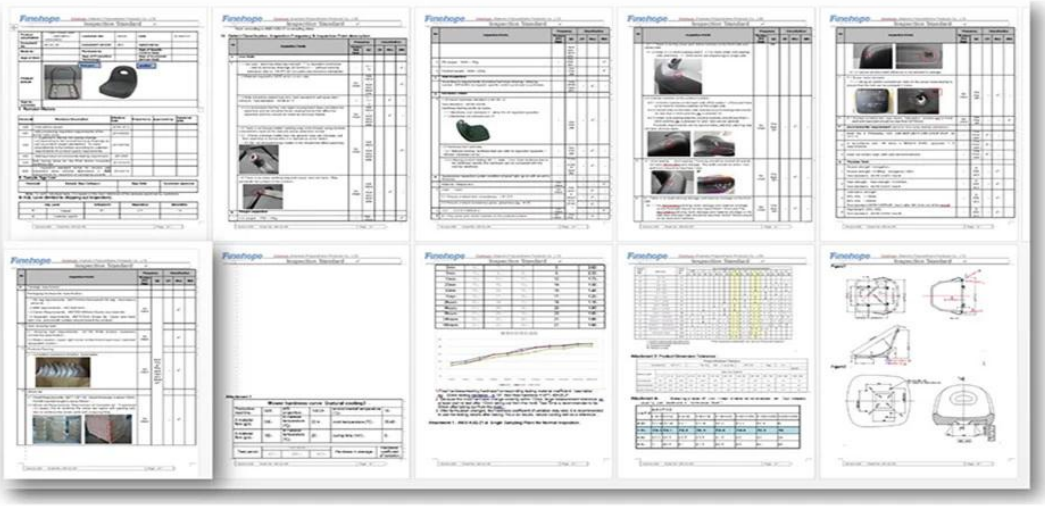
Compressive Strength



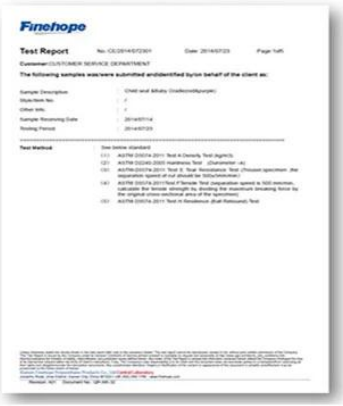


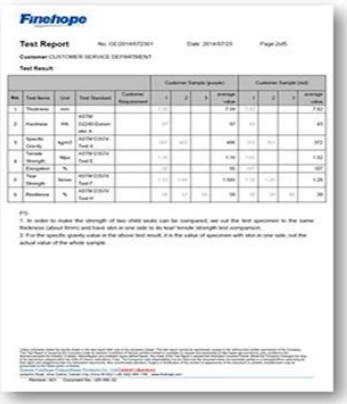
Indentation Force Deflection

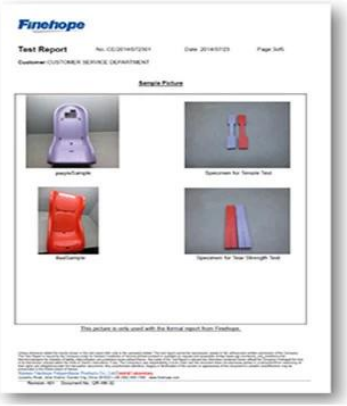
INSPECTION STANDARD



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

PDject 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-Hueng

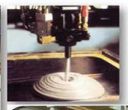
Model year/project   Key Dates   FMEA Date (Original):2015.03.25

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
	Clamping is not in place	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

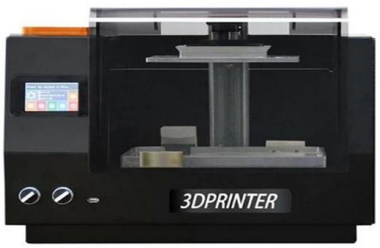
Finehope has continued to purchase CNC equipment since 2016. CNC (Computer Numerically Controlled) machining is a manufacturing process in which preprogrammed computer software dictates the movement of factory tools and machinery. Using this type of machine versus manual machining can result in improved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