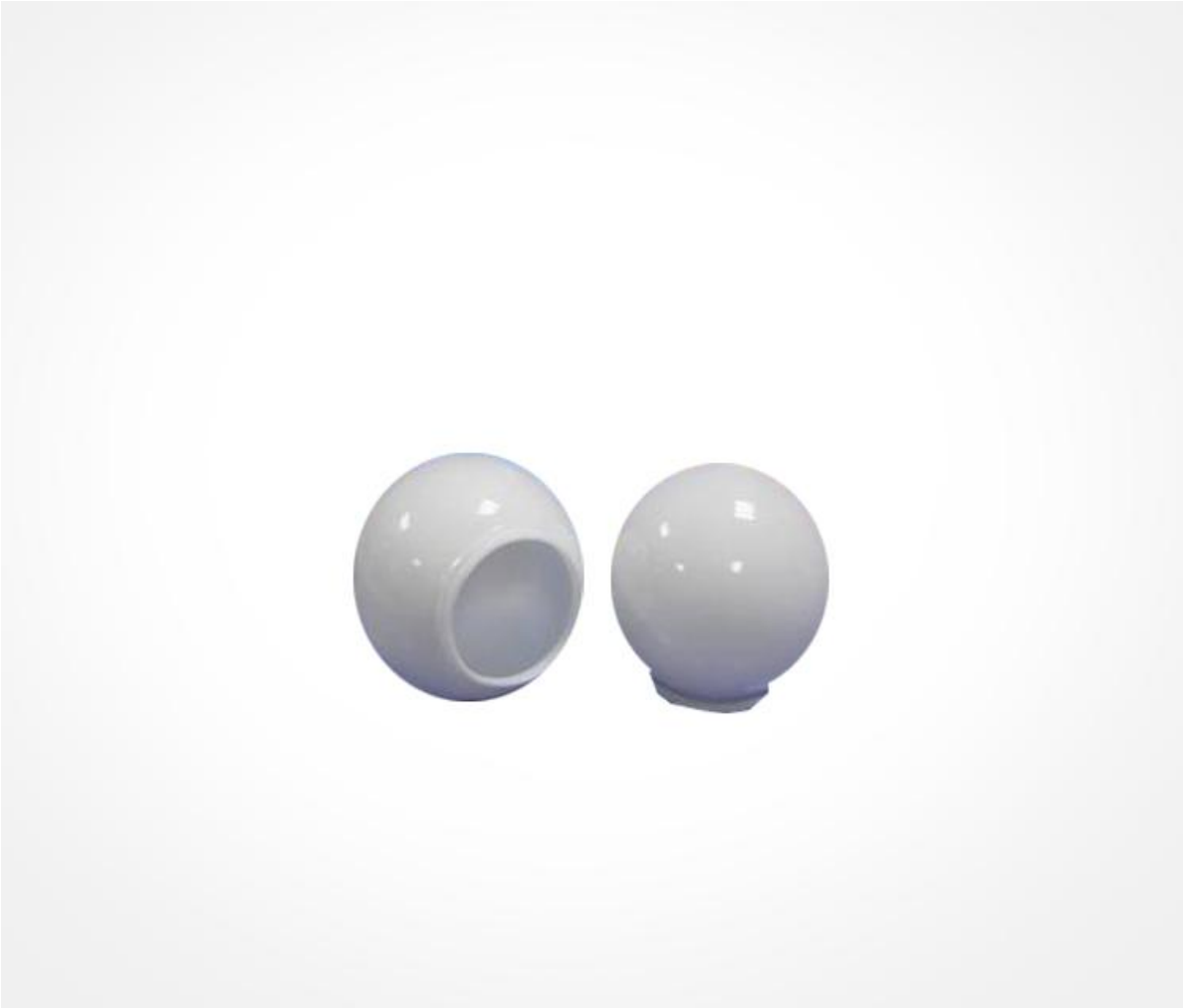
Injection Molded Delrin Solid Plastic Ball Mold



ABIS Mold was found in 1996 in Shenzhen, adjacent to HK, China. and we moved to Long gang District in 2010.With the advanced facilities from Germany, Switzerland and Japan, and a highly experienced design and engineering team.Our molding press machine ranges from 40T to 650T, 300+ molds capacity each year, and 70 % are exported to Europe and North America.

In addition to our plastic mold and molding specialties, we also can provide you the services such us die casting, stamping /punching, blowing mold, as well as the secondary process.

Product Description

Part Name	Injection Molded Delrin Solid Plastic Ball Mold
Description	Plastic Injection Mould /Plastic Auto Mould
Country of Original	China (ShenZhen)
Current Export Markets	North America
Lead Time	30 Days

Key Specification

1. Plastic Injection Over Mould

2. Cold Runner Mould

3. Plastic Injection Connector Mould

4. 1*4 Cavity , Ultramid A3K PA66 Material

5. H13 Steel

6. Two - Plate Mould

7. DME Standard Accessories

8. Cycle Time 45s

9. Press 350 Tons

General Information

Item#	Item	Description
1	Mold standard	DME or HASCO
2	Mold Base	LKM,DME, HASCO, FUTABA
3	Cavity/Core Steel	H13,S-7,S136,SS420,NAK80,P20
4	Hot Runner:	MOULD MASTER, MASTER TIP, HUSKY, HASCO, DME, YUDO, INCOE, THERMOPLAY, SYNVENTIVE.
5	Hydraulic Cylinder	PARKER, TAIYO, STAUBLI, JUFAN
6	Mold Components	DME, Progressive, PCS, Punch, Royal, etc
7	Steel Treatment	Heat Treatment, Nitriding, Chrome Plating
8	Surface Finish:	SPI standard, VDI EDM, Texture, etc
9	Texture:	Mold-tech, Yick Sang, Ni Hong ,Tanazawa etc
10	Plastic Material	PP, PC, ABS, PE, HDPE, PET, POM, PMMA, PA(GF), PBT(GF), PVC, PPS, PEI, PEEK, LCP, PSU
11	Design Software:	CAD,UG, Pro E, Solidworks
12	Value-added Service:	Dust-free Spraying, Silk-screen Printing, Ultrasonic Welding, Thermal Bonding, Assembling, Prototype
13	Export Country:	Europe, USA, Canada, Mexico, Brazil, Australia ,Middle-east , India etc
14	Our Capability:	Auto, Aerospace, Household, Electrical, Industrial, Medial, Toys, Office, Cosmetic, Outdoor, OA Equipment etc

Processing Equipment

NAME OF MACHINE	BRAND	Q'TY	PLACE OF ORIGIN
CNC	DMG	1	Germany
CNC	YCM-FP66A	2	Taiwan
EDM AQ35L	SODICK	3	Japan
Wire EDM AQ327L	SODICK	2	Japan
EDM	CHARMILLES-35P	2	Swiss
EDM	TAIWAN NUMERIC CONTROL	6	Taiwan
Wire cutting machine	QIGNYUAN	4	Shanghai
digital display milling machine	YINGSHUN	8	Taiwan
digital display grinding machine	SUHRE	8	Taiwan
Injection molding machine	HAITIAN	11	China
3 Dimension Coordinate	DABAO	1	Taiwan
digital display projection apparatus		1	China

Dimension Report and Sampling Parameter

ABIS Tooling & Molding

TEL: +86-755-89984896 EXT:821 • FAX:+86-755-28960682 • Building B,Ying-Ke-Li Industr
Area,Long-Gang District.Shenzhen City,Guang-Dong Province,China P.C:518116

Dimension Inspection Report

Customer	SMR	Mold Trial #	T1	Unit	Metric	Picture	
Project #	Phase 2	Trial date	2014.12.29	Inspection date	2015.01.08		
Part Name	8876_SCALP without TS_RH	Mold number	ABIS20141128	Inspector	Mr. Li		
Part / Draw #	60063006D #2	Material	ABS MP0160R	Manager	/		

Inspection Tools: Block gauge (BG), Caliper (CP), Coordinate Measuring Machine (CMM), Height gauge (HG), Micrometer (MM), Projector (PJ), Pin gauge (PG), Radi
(RG), Thickness gauge (TG)

Dimension spec					Shot 1		Shot 2		Shot 3		Shot 4		Judgment	
Dim #	Dimension	Tolerance		Inspection Tools	1	2	1	2	1	2	1	2	OK / NG	Rema
1-1	1.20	+	0.20	CP	1.19	1.23	1.22	1.24	1.22	1.23	1.20	1.21	OK	
		-	0.20											
1-2	1.20	+	0.20	CP	1.21	1.22	1.20	1.20	1.21	1.23	1.22	1.20	OK	
		-	0.20											
2-7	1.50	+	0.20	CP	1.51	1.52	1.52	1.53	1.51	1.50	1.49	1.52	OK	
		-	0.20											
2-8	1.50	+	0.20	CP	1.52	1.52	1.52	1.52	1.51	1.53	1.49	1.51	OK	
		-	0.20											
2-9	1.50	+	0.20	CP	1.51	1.52	1.52	1.52	1.51	1.50	1.49	1.50	OK	
		-	0.20											
3-1	1.70	+	0.20	PJ	1.72	1.69	1.70	1.69	1.70	1.71	1.73	1.70	OK	
		-	0.20											
3-2	1.70	+	0.20	PJ	1.71	1.72	1.69	1.70	1.71	1.72	1.71	1.72	OK	
		-	0.20											
3-3	1.70	+	0.20	PJ	1.71	1.72	1.71	1.70	1.69	1.70	1.69	1.71	OK	
		-	0.20											
3-4	1.70	+	0.20	PJ	1.69	1.70	1.70	1.71	1.72	1.71	1.73	1.71	OK	
		-	0.20											
3-5	1.70	+	0.20	PJ	1.71	1.71	1.72	1.73	1.71	1.71	1.72	1.73	OK	
		-	0.20											
3-6	1.70	+	0.20	PJ	1.71	1.72	1.73	1.71	1.72	1.71	1.71	1.72	#REF!	

Prepared	Mz. Lillian	Checked	Mr. Li	Approved	Mr. Zhang
Date	2015.01.10	Date	2015.01.08	Date	2015.01.08

To be completed by customer:

Signature: _____

Result:	☐ Pass	☐ Fail	☐ Special Acceptance

ABIS MOLD INJECTION PARAMETER REPORT

>类型Shot Type:	☑ 单色One shot mold	☐ 双色第一次1st shot of 2-shot	☐ 双色第二次2nd shot of 2-shot

模具编号 Tool No.		产品名称 Part Name		模具规格(mm) Tool L*W*H		试模次数 Test times	
模腔数量 N° Cavity		塑胶原料 Raw Material		颜色 Color		项目负责人 Project Manager	
产品总重量 Gross Wt(g)		机台型号 Press Type		试模数量(啤数) Shot Qty		设计工程师 Design Engineer	
试模日期 Test Date		上机时间 Beginning Time		完成时间 Finish Time		审核Reviewed /日期Date	

***试模前的准备：**试模单、产品图纸、物性表、卡尺、烤温计、油温机、温控箱、电子天平、照相机、打磨机（用于调整浇口直径）等工具

备注Comments:

>成型参数表Molding Parameter Sheet:

时间 Time(s)	周期时间Cycle Time			温度设定 Temp(℃) Setup	射嘴温度Nozzle Temp℃		
	填充时间Filling Time				一段温度Zone 1 Temp℃		
	保压时间Holding Time				二段温度Zone 2 Temp℃		
	冷却时间Cooling Time				三段温度Zone 3 Temp℃		
压力Pressure (Bar) (1Mpa=10Bar =145Psi)	射胶压力 Injection Pressure	一段1st Stage			四段温度Zone 4 Temp℃		
		二段2nd Stage			热流道温度Hot Runner Temp℃		
		三段3rd Stage			前模设定温度Cavity Temp. Setup		
		四段4th Stage			后模设定温度Core Temp. Setup		
	保压压力 Holding Pressure	一段1st Stage			行位设定温度Slide Temp. Setup		
		二段2nd Stage		速度或速率 Percent of Speed(mm/s) or Flow Rate(g/s)	射胶速率一段Injection Speed1		
		三段3rd Stage			射胶速率二段Injection Speed2		
	储料压力Charge Pressure				射胶速率三段Injection Speed3		
	背压Back Pressure				射胶速率四段Injection Speed4		
位置 Position(mm)	射胶位置1st Inj. End Position				保压速率一1st Holding Speed		
	射胶位置2nd Inj. End Position				保压速率二2nd Holding Speed		
	射胶位置3rd Inj. End Position				保压转换Turn Hold(time/pos.)		
	射胶终止位置Inj. End Position				熔胶速率Charge Speed		
	熔胶终止位置Melt End Position			原料干燥 Raw Material	干燥温度Drying Temp(℃)		
	射退位置Suck Back End Position				干燥时间Drying Time(H)		
模具 Tool	锁模压力Clamp Pressure			实际模温 Actual Temperature (℃)	前模表面 Cavity Surface	机水Normal Water	
	开模压力Opening Pressure					热油Hot Oil	
	顶出行程Ejection Stroke					凉水Cool Water	
	顶出次数Count of Ejection				后模表面 Core Surface	机水Normal Water	
	抽芯机构Side Action(组Unit)					热油Hot Oil	
顶出 Ejection (%)	托模进 Forward	压力Pressure				凉水Cool Water	
		速度Speed			行位表面 Slide Surface	机水Normal Water	
	托模退 Backward	压力Pressure				热油Hot Oil	
		速度Speed				凉水Cool Water	

>产品外观问题/Product Appearance Faults:

☐	粘前模Sticking in Cav	☐	抛光不良Poor Polishing	☐	披锋Flash	☐	裂痕Stress Crack	☐	熔合线Weld L
☐	粘后模Sticking in Core	☐	顶出不顺Uneven Ejec.	☐	顶白Ejector Marks	☐	喷射痕Jetting	☐	黑点Dark Spo
☐	水印Water Wave Marks	☐	拖花Scratch Marks	☐	变形Deformation	☐	缺胶Short Filling	☐	烧焦Burn Mar
☐	冷料流痕Cold Slug Marks	☐	困气Gas Trap Effect	☐	缩水Sink Marks	☐	段差Gap	☐	气泡Air Bubbl

>试模过程检查/Tryout Process Check:

开合模动作检查		模具进水检查		流动平衡检查，填充30%、60%、90%	
模具顶出动作检查		快速填充检查模具排气		填充99%检查毛边、缩水与变形	

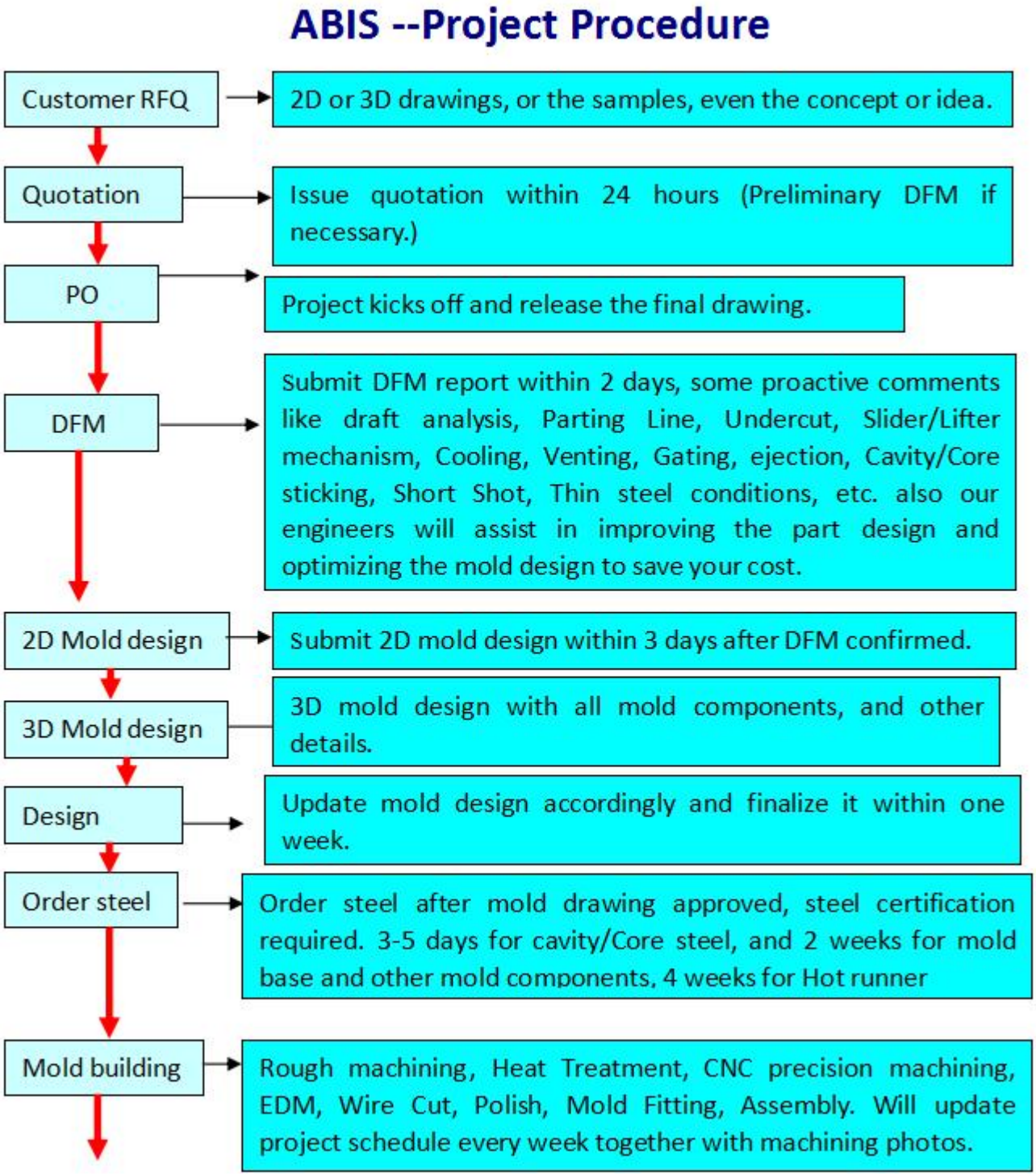
>试模问题点描述及建议/Comments:

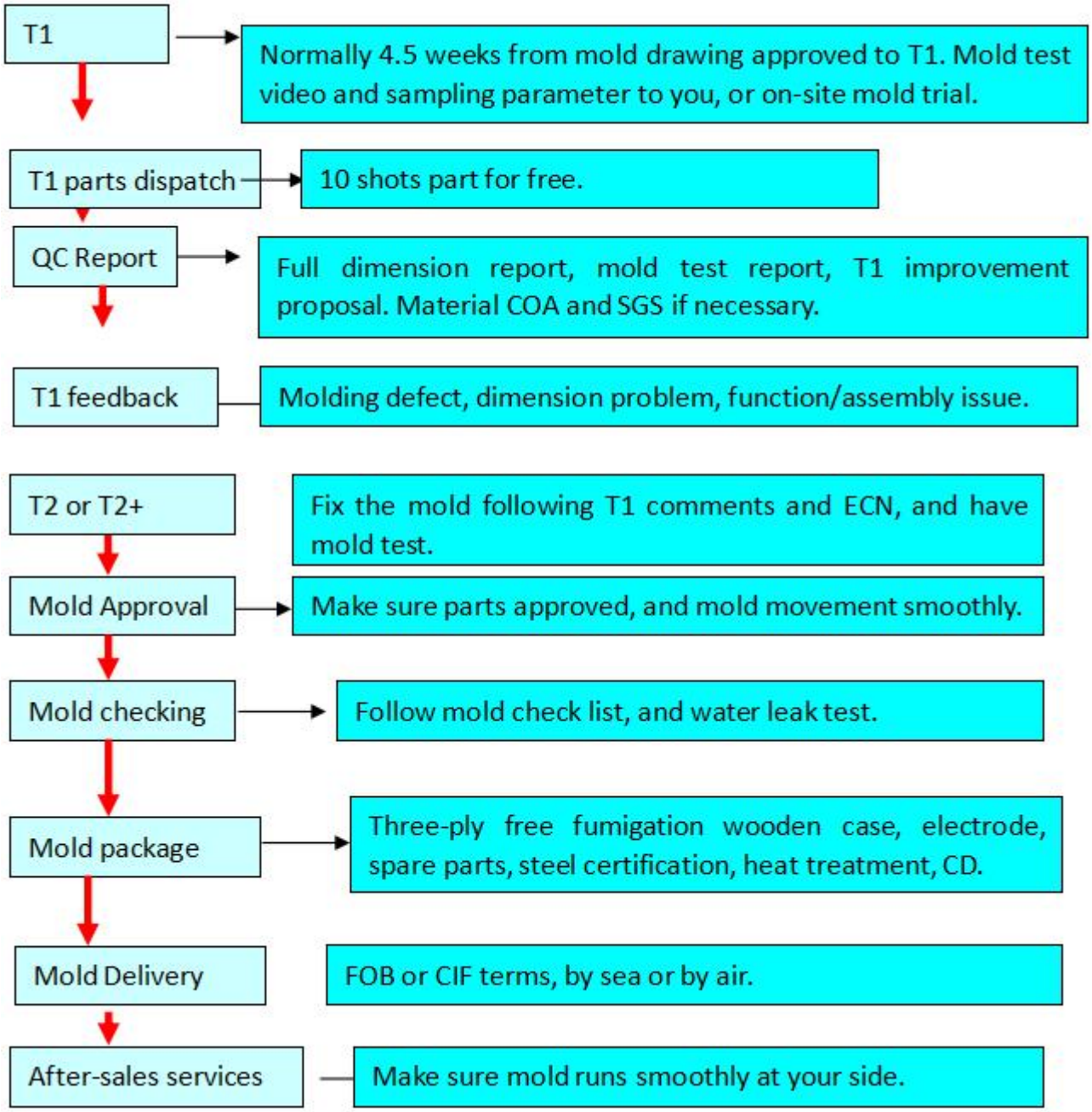
问题：产品毛边/玻纤纹

对策：飞模/流道加大/进胶口加大/冷料井加大

记录Record		日期Date		审核Reviewed		日期Date	

Project Procedure





Payment Terms

1. T/T: 40% Deposit,30% upon T1 Sample,30% Balance before shipment
2. L/C: irrevocable 100% L/C at sight.

Workshop

Certification

认证证书

深圳市艾比精密五金制股有限公司

符合 ISO/TS 16949:2009 质量管理体系标准

认证范围：

塑胶制品（把手）的生产（不包括 7.3 产品设计）

Certificate of Registration

Shenzhen ABIS Precision Hardware Plastic Co. Ltd

Ficort, Building C, Sha Bei Li Yng Keli Industrial Park LongDong Community, Longgang street, Longgang District , Shenzhen City, Guangdong Province, China

ISO/TS 16949:2009

Manufacture of Plastic Parts (Handles) (Excludes Product Design unde Clause 7.3)

Tooling Shop

QC Control

Mold Making QC main steps

Mould Design Control : Design review checklist before submitting to the customer. We will not start the steel purchasing work until get your written approval on our mold drawing.

Incoming quality control: all steel material and outsourcing standard components will be checked to ensure that they are in accordance with the BOM(QTY and material/components name specified).

In process quality control: all the machining and assembling process is under control, we have QC team to check and supervise the tolerance and processed surface to satisfy the requirements. (Mould Steel Hardness Inspection, Mould Electrodes Inspection, Mould Core and Cavity Steel Dimension Inspection , Mould Pre-Assembly Inspection)

Final quality control: within 3 days the completion of the plastic mold, we will have a thorough check for the main size of the molded plastic sample and mold to ensure that the critical or full dimension (if required) are within tolerance.

Mould Pre-Shipment Final Inspection : Free-fumigation three-plywood case packing; make sure the mold is conformity to the approved mold drawing. The spare components and easily broken components and the electrode (if required) are packaged, as well as the mold drawing and some certificated.

Plastic Molding QC main steps

Vernier caliper measurement is performe
trained operators when the first product
our machine, we check the contour dimer
assembly status (if exist) to identify if any

The molded parts are then inspected agai
experienced QA department for the full d
especially the critical dimensions set by cu
quality result was recorded at the same ti
Result will be to our QC Supervisor directl
unqualified dimensions (if exist) are cause
uncontrolled factors or our mistakes and
the related actions to improve it.

We will trustily report the T1 result to cus
send T1 samples to customers for checkin
sometimes T1 samples need improvemen
samples are required by customer at first,
actions to improve the mold to make sure
have 0 defects. No shrinkage, warpage, fl
streak, air bubble, step line, ejector mark,
dimension within tolerance.

Package inspection: make sure QTY/color
and weight are correct.

Packaging & Delivery

Packaging Details：Free-Fumigation Three-Plywood case

Delivery Detail: 25-35 days by sea, 3-7 days by air

Our ABIS Family

ABIS Tooling &Molding

ABIS MOLD TECHNOLOGY CO., LTD

We will give our best service,quality, price and delivery time !

If you have any question just call me or send E-mail to me please!

FAQ

Q: Can you do post production?

A:Some customers in addition to plastic injection require post proce ssing, assembly of their products and packaging.

Q:

Is it possible to know how are my products going on without visiting your company?

A:We will offer a detailed production schedule and send weekly rep orts with digital pictures and videos which show the machining pro gress.

Q: If you make poor quality goods, will you refund our fund?

A: As a matter of fact, we won't take a chance to do poor quality products. Meanwhile, we manufacture goods quality products until your satisfaction.

Q: What is the software you will use to check the drawing?And what is format of drawing you can check?

A: Our designers and engineers all use VISI and UG to check 2D and 3D drawings.

We can check the drawing with PDF .AI, DWG ,STP or IGS formats.

Q:How can you confirm the plastic injection mold you produce is the one we need?

A: we can provide professional mold analysis reports before mold making.

Q:What can we do if we don’t have the mold drawing ?

A: you will only provide the actual sample to us then we can help you to make the design injection mold drawings for your confirmation.