



Automotive Interior Acoustic Soft Trim Molds and Checking Fixtures

Headliner, Carpet and Floor, Dash Outer,
Dash Inner, Underbody, Hood Applications



Thermoforming and Compression Molds
and Checking Fixtures
for Automotive Interior Parts

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Toronto, ON

Greetings

Leader in Automotive Interior Part Molds and Fixtures

Based on the mold manufacturing technology and know-how accumulated for the last 20 years, **SINHWA TECH** has become a **leading auto interior parts mold manufacturer** in Korea. It supplies its mold and checking fixture not only to domestic market but also to overseas in the U.S, China, Turkey, Czech Republic, Malaysia, and many more. In addition, we have been **exporting molds to Japan for 11 years** since it was recognized for its molds quality and performance by a Japanese car interior parts manufacturer that is known to be particular.

In **SINHWA TECH** R&D center, experienced engineers design molds using the latest designing tool software and we currently hold 12 patents in vehicle interior parts thermoforming molds, and perform various research and development programs run by the government and civil organizations.

In **SINHWA TECH** Factory, it is fully equipped with machineries and equipment for molds and checking fixtures manufacturing, such as 12 5-axis CNC high speed machines, mills, lathes, drills, welders, and assembly machines. Also, we have established a one-stop integrated production system for mold designing, machining, assembling and try-outs, with 2 electric ovens and 200 ton & 300 ton hydraulic press machines that can try-out assembled molds.

SINHWA TECH will do its best to satisfy our customers' requirement for technology and quality while ensuring reasonable price and quick delivery, and share our future success stories with you.

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History

Overview

2015

2015. 11	Particiated in KAP INDIA 2015 (KOTRA)
2015. 11	Designated 2015 Promising export firm (SMBA)
2015. 10	Participated in China chongqing & wuxi export conference (KITA)
2015. 09	Participated in Euro mold 2015 (KITA)
2015. 08	Selected 2015 Global star venture promotion business (Ulsan Economic Promotion Agency)
2015. 06	Received 2015 Small and Medium Enterprises Management Award (Mold manufacturing)
2015. 06	Designated 2015 Ulsan Small Hidden Champion (Small and Medium Business Administration)
2015. 03	Obtained Research Institute certificate (Korea Industrial Technology Promotion Association)
2015. 03	Moved to a new factory in Ulsan Maegok-dong auto valley and expanded facilities, production capacity
2015. 01	Make inroads in the export market in China, Japan and Southeast Asia

2009 ~ 2014

2014. 12	Achieved annual sales US\$15,000,000 (Export record US\$2,000,000)
2014. 12	Obtained totally 9 patents and 3 utility models for automotive interior parts molds
2013. 08	Selected 2013 Global star venture promotion business (Ulsan Economic Promotion Agency)
2012. 08	Selected 2012 Global star venture promotion business (Ulsan Economic Promotion Agency)
2011. 12	Designated 2011 Promising export firm (Busan-Ulsan Export Center, SMBA)

2005 ~ 2008

2007. 06	Designated 2007 Promising export firm (SMBA)
2006. 12	Selected 2006 enterprise of Ulsan metropolitan major exportation Award (Ulsan metropolitan city)
2006. 08	Selected a million USD exportation Award (President prize)
2006. 06	Designated 2006 INNO-BIZ (SMBA)
2005. 10	Selected 2005 venture enterprise Award (SMBA)

2000 ~ 2004

2004. 02	Obtained Research Institute certificate (Korea Industrial Technology Association)
2003. 06	Started overseas export to Japan, China, Turkey (Floor carpet, Headliner, Luggage mat and so on)
2002. 07	Signed with Ulsan College for the academic- industrial cooperation agreement

1994 ~ 1999

1999. 12	Designated 1999 Promising export firm (NH bank)
1999. 11	Moved to a new factory in Dalcheon agricultural industrial complex
1998. 07	Introduced OA, PA system
1997. 05	Produced forming & press molds for auto interior parts
1994. 05	Founded Sinhwa Model

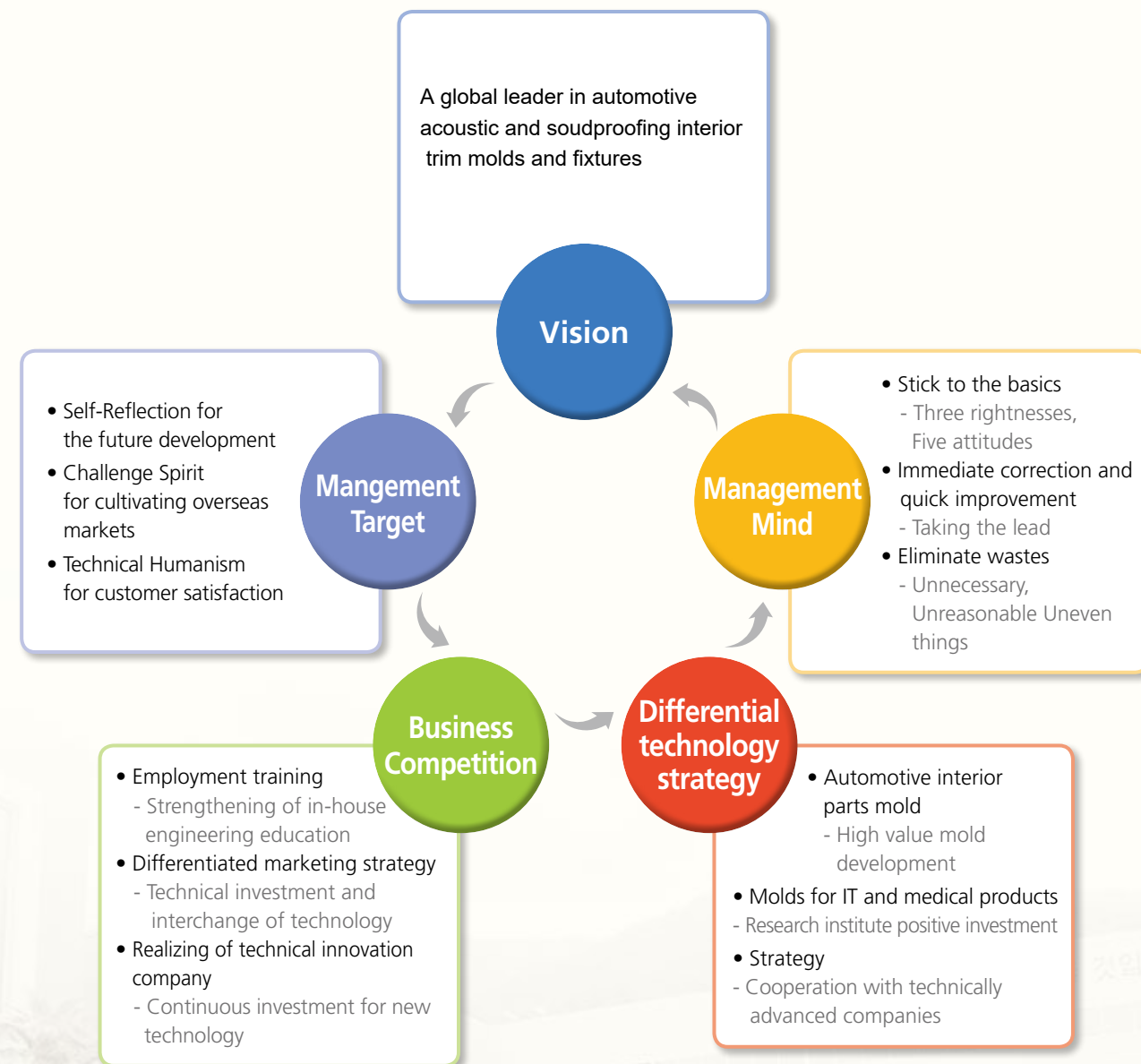
Establishment	May 31, 1994 (Incorporation of going business : June 01, 2004)			
Head Office	20 Maegoksaneop 6-gil, Buk-gu, Ulsan, Korea			
President	Jin-Ho Choi			
Capital	US\$ 750,000			
Total Sales	US\$15 million (Overseas sales : US\$2 million)			
Line of Business	Thermoforming mold, checking fciture, water jet cutting Jig and Ultrasonic cutting Jig and others			
Auto Interior Parts	Floor carpet Under cover Covering Shelf	Wheel Guard Trunk Lid Partition Upper/Lower	Headliner Luggage Side Package Tray	Engine Hood Luggage Mat Dash Insulation pad
Number of Employees	55			
Domestic Customers	1st Suppliers of Hyundai, Kia, Renault Samsung, Chevrolt			
Overseas Customers	1st Suppliers of Mazda, Toyota, Honda, Subaru, Perodua			
Major Market	Korea, China, Japan, India, Southest Asia, U.S.A, Czech, Slovakia			

Certificate

Quality is more important than quantity



Philosophy



Partner

Domestic Customers



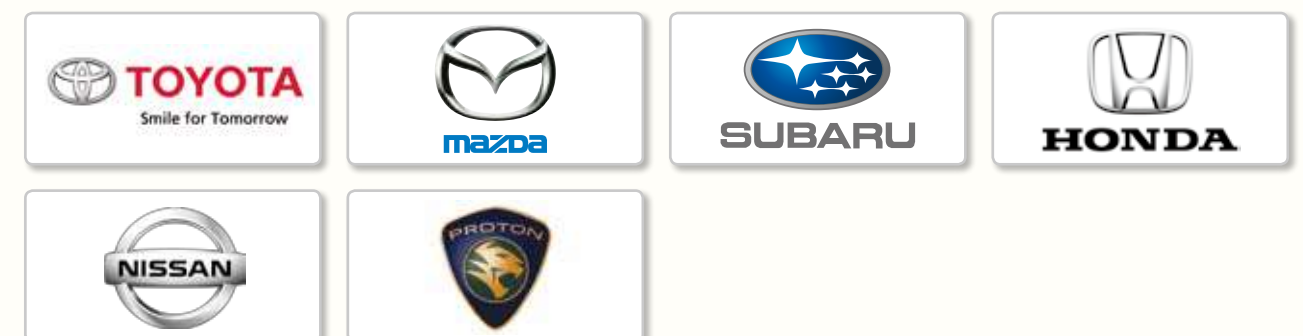
Domestic Car Makers



Overseas Customers



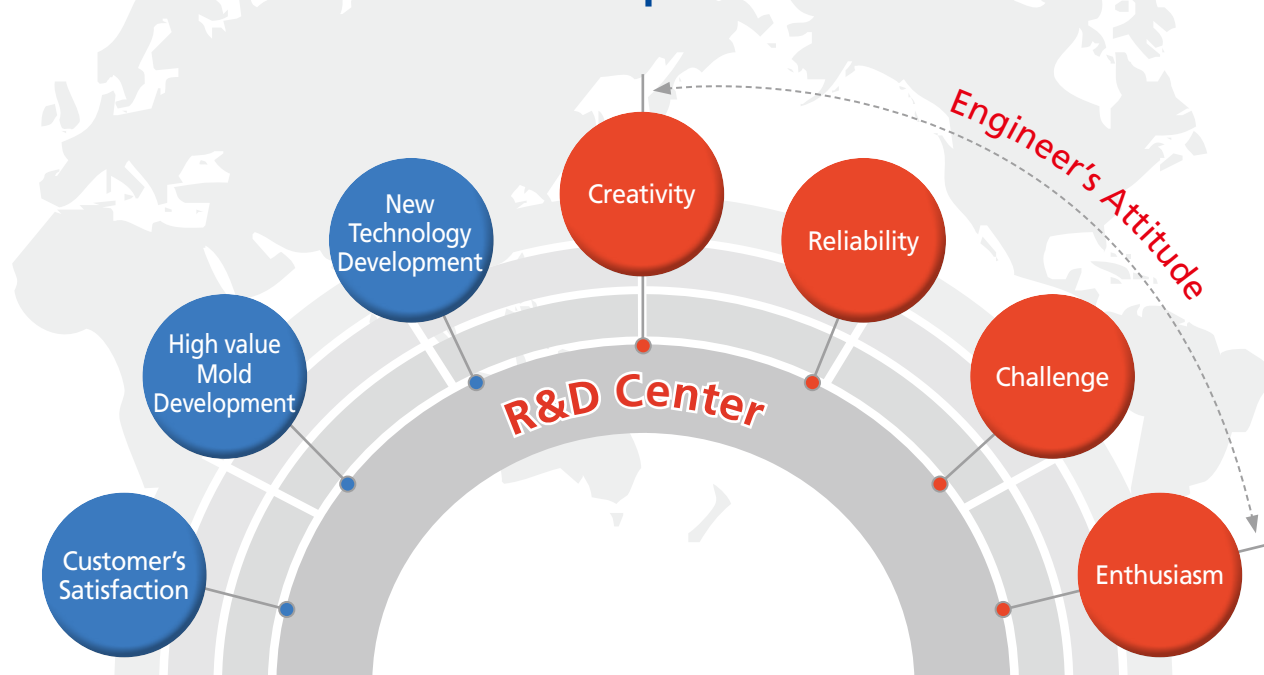
Overseas Car Makers



R&D Center

Patent

Hidden Champion for Automotive Interior parts molds in Korea



Reliable Technical Capabilities

To meet customer requirements, such as high efficiency, longevity, quick modification, we are ready to implement feasibility study for mold structure and formability



No.	Type	Title of invention	Application No.	Registration No.
1	Utility model	Air vent unit	2020040021759	20-0364033
2	Utility model	LM guide mat clamping	2020040021761	20-0364258
3	Utility model	Air blow mold of blow head	2020040021760	20-0365220
4	Patent	Knife gate valve	1020050030796	10-0706937
5	Patent	Metal mold for manufacturing an automobile inner element	1020080060707	10-0957746
6	Patent	Forming device for wallboard of vehicle	1020080060710	10-0957747
7	Patent	Metal mold for manufacturing an automobile inner element	1020080060704	10-0978891
8	Patent	Oil heating mold apparatus by heat for a truck lid	1020100068608	10-0987594
9	Patent	Metal mold for manufacturing an automobile inner element	1020100068609	10-1022576
10	Patent	Knife slit metal mold for manufacturing a floor carpet in automobile inner element	1020090002595	10-1022913
11	Patent	Equipment for cutting a wheel guard of vehicle	1020120089828	10-1416688
12	Patent	Equipment for molding a wheel guard of vehicle	1020130019917	10-1504627



Facility

Manufacturing process



MCV-A II 2050

Table size 5,000 × 1,500mm
Spindle speed 4,000 RPM



MCV-A II 2030

Table size 4,000 × 1,900mm
Spindle speed 10,000 RPM



SW-423

Table size 4,000 × 2,200mm
Spindle speed 6,000 RPM



SF-3120

Table size 3,000 × 1,800mm
Spindle speed 6,000 RPM



PRO-3210

Table size 3,050 × 2,100mm
Spindle speed 6,000 RPM



HB-3210

Table size 3,200 × 2,040mm
Spindle speed 4,000 RPM



HEP-2150

Table size 2,000 × 1,400mm
Spindle speed 6,000 RPM



HCMC-1892

Table size 1,950 × 920mm
Spindle speed 4,000 RPM



HDSP-3000-A1 & DSCP-00200-10

Capacity 300 Ton
Stroke 1,500mm
Area of Slide 3,000 × 2,200mm



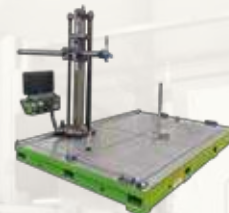
SH-P-M-032 & 033

Size 2,000 × 1,300 × 400mm
7,800 × 2,700 × 2,450mm
Power 1kw × 400L × 60ea



SH-P-M-039

Type Paint booth
Size 4,500 × 4,000 × 2,100mm
Space 37.8m²



Fujioka-01 / 02 / 03 / 04

Surface plate 3,000 × 2,000mm
Spindle speed 6,000 RPM



Step 01

Review customer's 3D data

- Feasibility study for mold structure and formability
- Submit an estimate, delivery schedule



Step 02

Mold design (2D)

- Make a mold drawing based on the meeting result with customer and internal manufacturing standard.



Step 04

FC or AL casting for mold body

- Make FC or Aluminium mold body by Full Mold Casting method using pre-NC machined polystyrene form pattern



Step 03

Pattern manufacturing

- Make an evaporative-pattern using polystyrene form by NC machining



Step 05

Mold 3D modeling Data

- Make a mold drawing based on the meeting result with customer and internal manufacturing standard.



Step 06

CNC work

- Machine the surface of FC or AL casted mold using WORK NC program on 3D CNC machine (Rough → Semi-Finishing → Finishing machining)



Step 08

Die spotting

- Combine the upper & lower mold on the hydraulic press machine for checking contact surface



Step 07

Finishing & Assembly

- Assemble all the related parts in accordance with the drawings



Step 09

Try-out

- Try out the finished mold for making products and check all the parts on mold (1st Try-out in-house and 2nd Try-out in a customer's factory)



Step 10

Dimension inspection

- Mount the finished product on the checking fixture and check dimension in accordance with approval drawings.

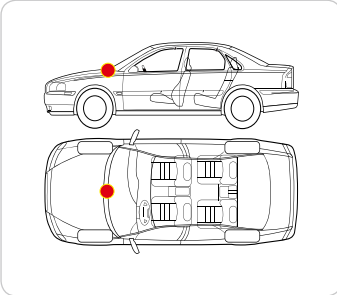
Production Lead time

Product	Type of Mold	Specifications Approval	Pattern Fabrication	Full-mold Casting	3D Modeling	CNC Work	Polishing Assembling	Die Spotting	Try-out	Lead Time
Headliner	Cold forming or Thermoforming	6	5	10	4	10	5	3	2	45 days
	Compression	6	5	14	4	14	7	3	2	55 days
	Trimming & Piercing	14	7	14	12	20	16	5	2	90 days
	Water jet JIG									35 days
	Checking Fixture									35 days
Floor Carpet	Forming	6	5	10	4	10	5	3	2	45 days
	Foaming	10	5	10	4	12	9	3	2	55 days
	Trimming & Piercing	14	7	14	12	20	16	5	2	90 days
	Forming+Trimming	14	7	14	12	20	16	5	2	90 days
	Water jet JIG									35 days
	Checking Fixture									35 days
Wheel Guard	Forming	6	5	10	4	9	6	3	2	45 days
	Trimming & Piercing	10	5	14	7	20	12	5	2	75 days
	Piercing Equipment									35 days
	Checking Fixture									35 days
Luggage Side	Forming	7	5	14	4	8	7	3	2	50 days
	Trimming & Piercing	10	5	14	7	20	12	5	2	75 days
	Forming+Trimming	14	7	14	12	15	16	5	2	85 days
	Checking Fixture									35 days
Luggage Mat	Forming+Trimming	6	5	14	4	14	7	3	2	55 days
	Checking Fixture									35 days
Trunk Lid	Forming	6	5	10	4	10	5	3	2	45 days
	Forming+Trimming	6	5	14	4	11	5	3	2	50 days
	Checking Fixture									35 days
Partition Lower Upper	Forming	6	5	10	4	9	6	3	2	45 days
	Trimming & Piercing	6	5	14	4	14	7	3	2	55 days
	Forming+Trimming	6	5	14	4	14	7	3	2	55 days
	Checking Fixture									35 days
Package Tray	Forming	6	5	10	4	9	6	3	2	45 days
	Trimming & Piercing	6	5	14	4	14	7	3	2	55 days
	Piercing Equipment									35 days
	Checking Fixture									35 days
Engine Hood	Thermoforming	6	5	14	4	14	7	3	2	55 days
	Trimming & Piercing	6	5	14	4	14	7	3	2	55 days
	Checking Fixture									35 days
Dash insulation pad	Cold forming or Thermoforming	6	5	10	4	10	5	3	2	45 days
	Forming	10	5	10	4	12	9	3	2	55 days
	Trimming & Piercing	14	7	14	12	20	16	5	2	90 days
	Cooling Equipment									35 days
	Checking Fixture									35 days

Mold for Automotive Interior Parts




01. Engine Hood Insulation Pad



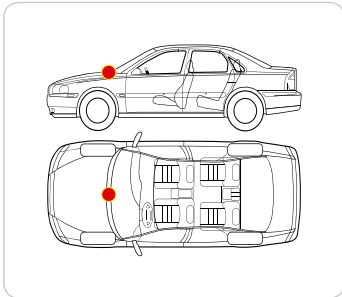
• Thermoforming

• Trimming & Piercing



Product	Type of Mold	Mold material	Lead Time
Engine Hood Pad	Thermoforming	FC25 / 30	55 days
	Trimming & Piercing	FC30, FCD75, SKD-11	55 days

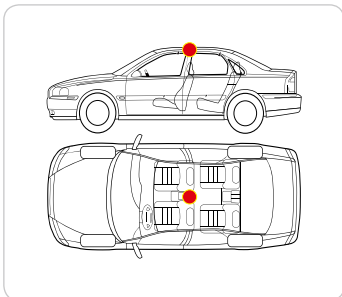
02. Dash Insulation Pad



- Cold forming
- Thermoforming
- Trimming & Piercing
- Cooling Equipment

Product	Type of Mold	Mold material	Lead Time
Dash insulation pad	Cold forming or Thermoforming Trimming & Piercing Cooling Equipment	AC4C (Cold forming) FC25/30 FC30, FCD55, SKD-11, SK-5	45 days 90 days 35 days

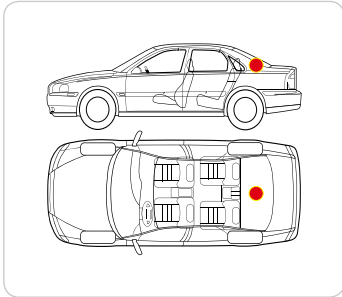
03. Headliner



- Cold forming Thermoforming
- Compression
- Trimming & Piercing

Product	Type of Mold	Mold material	Lead Time
Headliner	Cold forming or Thermoforming Compression Trimming & Piercing	AC4C (Cold forming) FC25, FC30 AC4C (Cold forming) FC25, FC30 FC30, FCD75, SKD-11	45 days 55 days 90 days

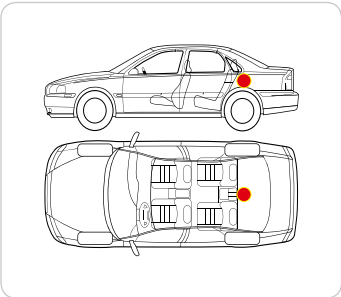
04. Package Tray



- Forming
- Trimming & Piercing
- Piercing Equipment

Product	Type of Mold	Mold material	Lead Time
Package Tray	Forming Trimming & Piercing Piercing Equipment	AC4C FCD55, FC30, SKD-11, SK-5	45 days 55 days 35 days

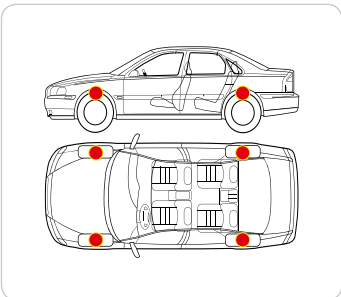
05. Partition Upper / Lower



- Forming
- Trimming & Piercing
- Forming + Trimming

Product	Type of Mold	Mold material	Lead Time
Partition Upper / Lower	Forming Trimming & Piercing Forming+Trimming	AC4C FCD55, FC30, SKD-11 AC4C, FC30, FCD55, SKD-11	45 days 55 days 55 days

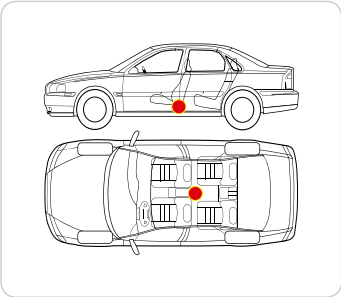
06. Wheel Guard



- Forming
- Piercing Equipment
- Trimming & Piercing

Product	Type of Mold	Mold material	Lead Time
Wheel Guard	Forming Trimming & Piercing Piercing Equipment	AC4C FC30, FCD55, SKD-11	45 days 75 days 45 days

07. Floor Carpet

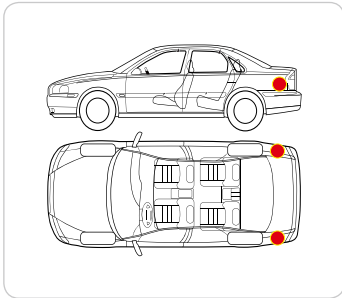


- Forming
- Foaming
- Trimming & Piercing
- Forming + Trimming



Product	Type of Mold	Mold material	Lead Time
Floor Carpet	Forming & Foaming Trimming & Piercing Forming + Trimming	AC4C FC30, FCD55, SKD-11, SK-5 AC4C, FC30, FCD55, SKD-11, SK-5	45 & 55 days 90 days 90 days

Checking Fixture for Automotive Interior Parts



08. Luggage Side





• Forming



• Trimming & Piercing

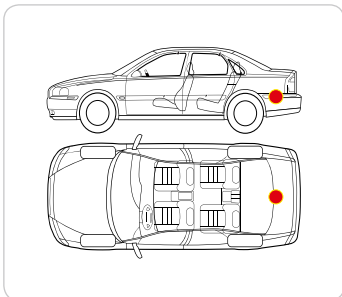


• Forming + Trimming









Product	Type of Mold	Mold material	Lead Time
Luggage Side	Forming Trimming & Piercing Forming + Trimming	AC4C (FC30) FCD55, FC30 AC4C, FC30, FCD55, SKD-11	50 days 75 days 85 days

09. Luggage Mat

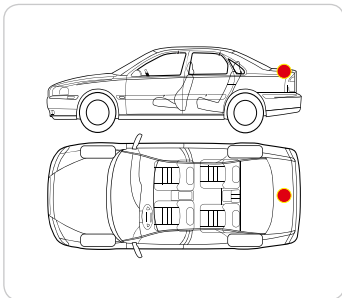


• Forming + Trimming





Product	Type of Mold	Mold material	Lead Time
Luggage Mat	Forming + Trimming	FC30, S45C (cutter bar)	55 days



10. Trunk Lid



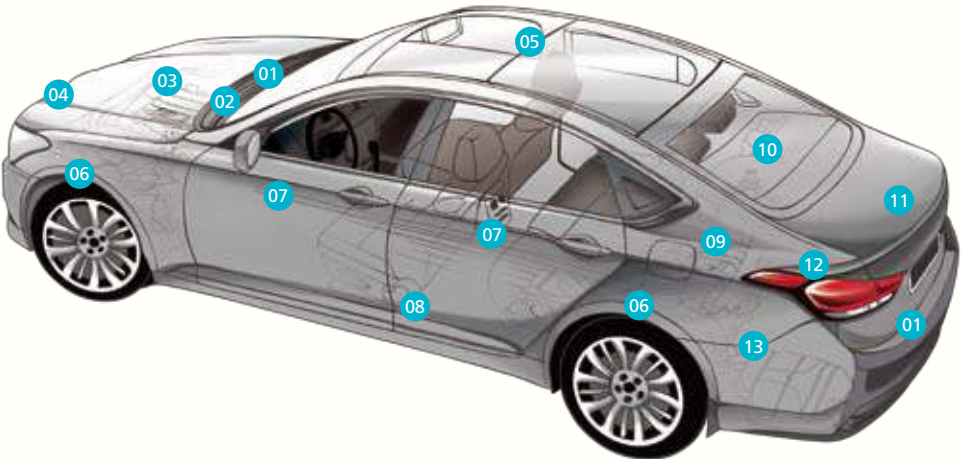
• Forming



• Forming + Trimming



Product	Type of Mold	Mold material	Lead Time
Trunk Lid	Forming Forming + Trimming	AC4C (FC30) FCD55	45 days 50 days




Glass Target Point JIG


Dash Insulation Pad


Engine Hood Pad


Bumper


Headliner


Wheel Guard


Door Trim


Floor Carpet


Partition Upper / Lower

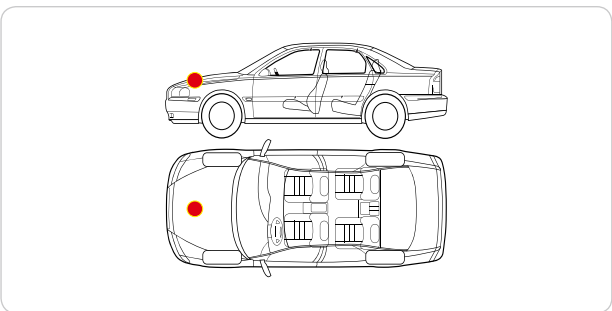

Package Tray



Trunk Lid


Luggage Mat


Luggage Side

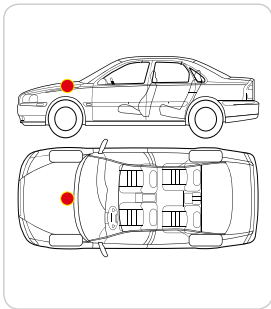
01. Glass Target Point JIG





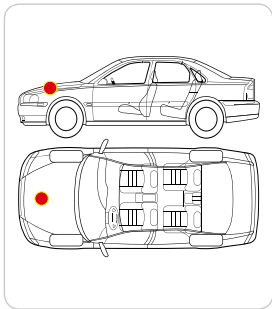
Type	Material	Lead time
Glass Target Point JIG	Aluminium	35 days

02. Dash insulation pad



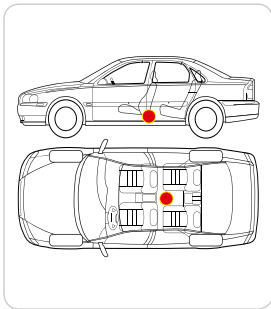
Material	Lead time
Workable Resin (Epoxy)	35 days

03. Engine Hood Pad



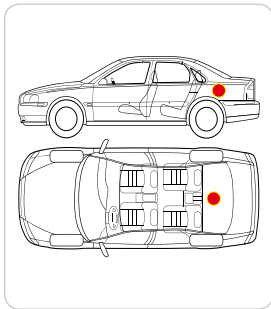
Material	Lead time
Workable Resin (Epoxy)	35 days

08. Floor Carpet



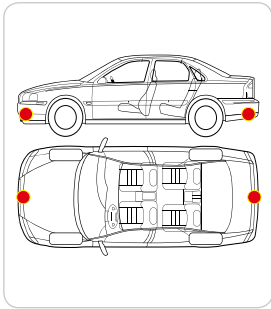
Type	Material	Lead time
Water Jet JIG	Workable Resin (Epoxy)	35 days
Checking Fixture	Workable Resin (Epoxy)	35 days

09. Partition Upper / Lower



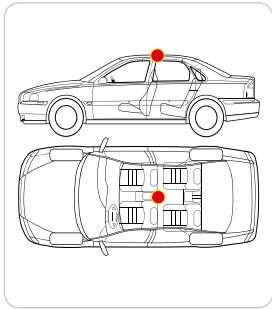
Material	Lead time
Chemical wood (Epoxy)	35 days

04. Bumper



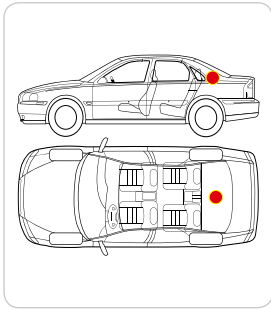
Material	Lead time
Chemical wood (Epoxy)	30~45 days

05. Headliner



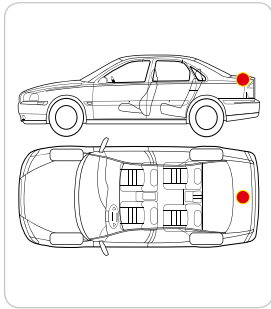
Type	Material	Lead time
Water Jet JIG	Workable Resin (Epoxy)	35 days
Checking Fixture	Workable Resin (Epoxy)	35 days

10. Package Tray



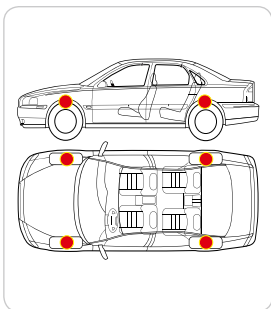
Material	Lead time
Chemical wood (Epoxy)	35 days

11. Trunk Lid



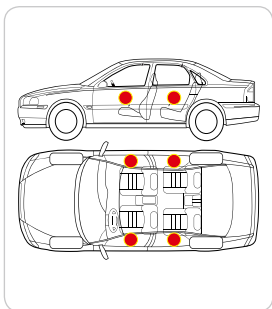
Material	Lead time
Chemical wood (Epoxy)	35 days

06. Wheel Guard



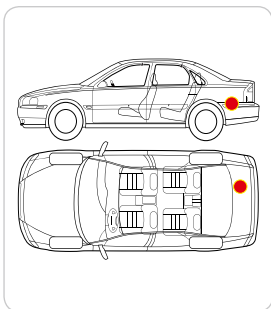
Material	Lead time
Workable Resin (Epoxy)	35 days

07. Door Trim



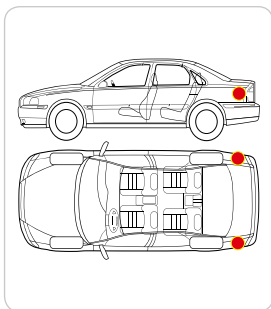
Material	Lead time
Workable Resin (Epoxy)	35 days

12. Luggage Mat



Material	Lead time
Chemical wood (Epoxy)	35 days

13. Luggage Side



Material	Lead time
Workable Resin (Epoxy)	35 days

Contact Us

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