

가, 「 PP · ABS 」

가 80% 가
 가 CAFE(Corporate Average Fuel Economy:) 90
 가 Clean Air Act 가
 가 Steel
 가 가

(: /)					
	PBT/PC			2,800	LUPOX TE-5011,
	Facia	XENOY 1102		3,400	5020
	Back Beam	XENOY 1402		700	
		-	-	6,900	-
	PP/EPR	LUPOL TE-5006B		1,200	
	Facia	LUPOL TE-5008B		150	
	(Steel)	E353G		250	
	Back Beam	E373F		200	
				800	
		-	-	2,600	-
()	PP/EPR	LUPOL HI-5002D	LPG(GS)	100	(20)
		()	VANET(1)	50	
		LUPOL HI-5002S		400	
				100	
		-	-	650	-
	RIM			600	/
	PP/EPR	LUPOL TE-5006K	(N/B)	360	N/B:Notch Back
			(H/B Front)	200	H/B:Hatch Back
			(POP)	60	
				240	
				60	
				-	
		LUPOL TE-5006B		400	
	E353G		90		
	LUPOL TE-5006K	WIT ()	300		
	H4800	(Festiva)	400	FORD OEM	
		-	-	2,510	-
	RIM			180	
				120	
		-	-	300	

가
 가 EP

가
 EP 가 ()
 75 1 1800KG 90 1200KG
 1000KG
 가 75
 5% 10% 10%
 3% 9% 가
 75 60%
 40% 가

() (: KG/)						
	Excel	1	Excel	2	Scoupe	
PE	3.07	2.32	2.04	2.90	6.83	Duct, Sheet Foam
EVA	1.22	0.86	1.60	0.55	0.75	Mud Guard
PP	18.80	21.92	16.43	19.25	26.88	Bumper Cover, Door Garnish(EMPP, TPO)
PVC	8.70	7.73	7.94	7.73	5.29	W/Line Molding, Door Trim
ABS	16.69	11.66	12.18	10.82	19.03	Clush/Pad, B/Panel Molding
PMMA	0.98	0.84	1.04	1.32	3.07	Lamp Lens
PU	9.39	17.30	15.38	20.81	20.42	Bumper Absorber, Pad Foam
BMC	0.0	1.24	1.38	1.62	0.0	Head/Lamp Reflector
PC/PBT	0.0	0.52	15.21	20.11	0.20	Bumper System
PA	2.13	5.74	5.86	6.52	2.28	Wheel Cover, Fuel System (PA-6, 6/6, 11)
PC	0.17	1.93	2.50	2.28	0.33	Head/Lamp Lens
	1.84	7.94	7.53	8.49	22.25	Cloth , Carpet
	62.99	79.55	89.09	102.39	107.35	(Board)
	900	1,018	1,003	1,231	1,337	
	7.00	7.81	8.89	8.32	8.02	

PP, PVC,
PE, ABS

가

SMC RIM

가 F RTP(Fiber Reinforced Thermoplastic)
 PP 가
 Facia, Foam, Beam PP ,
 PP , 100% PP
 가
 가
 가 ABS PP
 PP 가 가 가
 HDPE
 가가

가 25~30% 1

4 50%

4가

Facia Back beam PBT/PC() 7000
 PP/EPDM(Facia) Steel(Back Beam) 6000 , RIM Urethane(Facia) · Steel(Back beam)

1700 TPE/PBT 7000 , EMPP 2600 8500

(GE) (2800) , (3400) , (700) 6900
 . EMPP TE 가 (1200) , (150)

E353G가 1300 EMPP

2600

EMPP EMPP 650 , RIM 600 1250
 EMPP LPG(GS) 100 , VANET() 50

(400) , (100) EMPP 가
 600 가

EMPP

EMPP 2500 , RIM 300 2800
 . EMPP TE-5006K가 620 , 240 , 60 , WIT 400

TE-5006B 400

E353G (KD) 90 , H4800 OEM

FESTIVA 400 7 300

RIM (180) , (120)

6 , 300g,

1.5KG, 가 280g

33.6KG Seat 4.7KG, Consol 995g,

Inpanel 5KG, Pillar 3.5KG, 2.5KG, Wheel cap 3KG

Air Duck Block Copolymer B-310

, FAN A-

361

1(900KG) 62.99KG
 7% , 2(1018KG) 79.55KG 7.81%, (1003KG) 89.1KG

8.89%, (1337KG) 107.35KG 8.02%

(1231KG) 102.39KG 8.32% PE 2.9KG,

EVA 0.55KG, PP 26.88KG, PVC 7.73KG, ABS 10.82KG 가 41.25KG 40.3%

PP 19% PP 가
 PP가 37.5% pvc가 10.3%, ABS

9.9%, EVA 5.3% 가 가 84%

가 Primerless 가 , PP Based

TPE PVC

(: /)						
Intake Manifold		Steel	Nylon 66	X- () 94 3-4 (95)	720	· 92 1 Proto Mold Test · Lost Core 가 · BASF,
Air Duct		E315 (EMPP)	LUPOL TE-5009 (EMPP)		60 60	· Blow Molding Test 가
Back Mirror B/Plate		Al-Die Casting	LUPOX GP-2300	X- J- ()	60 100 60 15	· 92 2 · Al 60% 가 · 20% 가 Proto Mold Test
		"	"		120	·
Out Side Handle		Al-Die Casting	XENOY (PC/PBT) LUPOX TE-5011	X-	- 180 120	· XENOY
		"	"		-	
Fender		Steel	Noryl GTX		150	· GE
Fuel-tank		"	HDPE	(,)	-	· BASF, ()
		Steel	HDPE		-	·
Rockarm cover		Al-Die Casting	NYLON 6 + G/F	X-		· Proto Mold Try out
Back Beam		Steel Reinf	XENOY		1,600	· GE XENOY T/Out
			LUPOX TE-5020	(95)	620 370	· XENOY
			AZDEL	X- (94)	-	· PP Form AZDEL Steel (95)
		"	LUPOX TE-5011		600	· XENOY
		"	AZEDL (G/M TP) X-Sheet	(NB-7)	400	· 出光
Wheel Cover		Nylon66 (,)	NORYL GTX LUPOY HR-5007A G15300	-	-	· NORYL GTX T/Out
		Nylon6	NORYL GTX LUPOY HR-5007A		50	· Crack T/out

Steel .

ABS

PP

Steel

Back beam, Intake Manifold Back Beam 가

1600 ,

LUPOX TE-5020 700

X- ()

PP-FOAM AZDEL(GLA-SS MAT TP)

Steel

95

Steel TE-5011 600

X-SHEET

AZDEL

出光化學(IDEMITSU)

MUSSO(F-J CAR) BACK BEAM

GE

Intake Manifold

Steel

PA66

X-

720

BASF

가

STEEL

HDPE

(: /)						
In Pnl (Main Core)			NORYL LUPOSGP-2200		120 400	Proto Mold
		"	LUPOS GP-2200 LUPOL GP-2200		50 350	.87 .89
		"	LUPOL HI-5302D	-	230 60	
Hood		Steel	SMC	-	-	.96 20% , 8~9KG/
Trunk Lid	"	"	"	-	-	.96
Power Window MTR Housing	"	Al- D/Casting	PET	-	-	.93
Fuel Filler Neck	"	Steel+ Rubber	Nylon12 +Acetal	-	-	.94
Clutch Master Cylinder	"	Al- D/Casting	PA66+GF	-	-	.94
QTRFixed Glass Molding	"	PU-RIM	PVC	-	-	.94
Console	"	ABS	HCPP	-	-	Scratch Honda, Nissan
ACC Pedal	"	Steel	Nylon66/GF	-	-	.94
RR Seat Back Frame	"	Steel	HDPE (Blow Molding)	-	-	.95 Folding Type
FRT Seat Frame	"	Steel	Nylon66/GF	-	-	.96
Bumper E/ Absorber Foam	"	PU Foam	PP Foam (EPP)	-	-	.94 (KOSPA)

BASF

7

(NB-7)

B A C K
M I L L O R
B / P L A T E

94

3~4

X- ()

J-2 ()

60%

가

Rock Arm Cover

PA6/GF

-

X-

T/OUT

(/ 1.8, 2.0) (: g, /)						
	Air Duct	B-310	-		PL	(Block/Blow)
	Blower Fan		180	36		A-361
	Battery Case	JI-320	1,000	200		(Block/Inj)
	Rear Lamp Housing	B-153C,	500	100	Apollo	/ 50/50
가	Brake Reservoir	B-310	280	56	PL	
1) Bumper	Bumper					
	- FRT/Rear Facia	XENOY	12,000	2,400	Apollo	GE
	- Energy Absorber	-	-	-	-	-
	- Back Beam	XENOY	11,600	2,320	Apollo	GE
	- Reinforcement	-	-	-	-	-
2)	Fuel Tank	Steel	-	-	-	-
3) Radiator	Washer Tank	B-310	350	70	PL	
	Radiator Tank	B-310	350	70	PL	
4) Seat	Seat Back Frame RH/LH	:Steel (GL):5202B	4,000	240	Apollo PL	GL:6 / , 190g×2EA, HCJ-350 가
	Cover Seat Side RH/LH		380	76		
	Timing Belt Cover	Lucky	375	75		Lucky 가
5) Console	Cosole	HCA-352S	995	199	Apollo , PL	, (GLS):Apollo 70% GLS : PL 30%
6) Inpanel	Instrument Panel					
	- Skin	PVC+ABS	-	-		PVC/ABS=50/50
	- Cushion	PU Foam	-	-		
	- Core	ABS+GF	2,700	540	Apollo	HCA-352S
	Glove Box	Lucky	1,200	240	PL	HCA-352S
	Inpanel Lower	Lucky	1,200	240	Apollo	
7) Pillar	A/B/C Pillar Trim RH/LH	Lucky	3,500	700	Lucky	
8) Door	Door Trim FRT/RR RH/LH					
	- Skin	PVC	-	-		H-9020N
	- Cushion	PP Foam(EPP)	-	-		PP FOAM :
	- Core	Resin Felt	-	-		
9) Trunk	Trunk Mat	PP-Fiber/Wool Paper	1,500	300		PP-Fiber : Scrap PP+ Wool Paper : Polyester
	Trunk Side/End Trim	JI-320	1,000	200		
10) Head Liner	Head Liner					
	- Skin	Polyestert				H-9020N
	- Cushion	PE Foam				
	- Core	Resin Felt				
11) Str'g Wheel	Shroud Steering Column	ABS	350	70	Lucky	
12) Wheel Cap	Wheel Cap	Noryl	1,200	240	Apollo	300g×4EA,
	Wheel Cover		1,800	160		450g×4EA, 가
	Mud Guard	-	-	-	-	
13) DEF.	Heating Duct	B-310	540	108	PL	
	Heater Connection	5200B	860	172	PL	

Console Scrotch Hood Steel SMC 96 8~9KG
 Nissan, Honda가 20% ABS HCPP(PP)
 94 PU Foam PP Foam(KOSPA)
 QTR Fixed Glass Molding 94 PU-RIM PVC

가

가

2000 1 8~9% 가 100kg
 25.9% 75%
 500

(/ 1.8, 2.0) (: g, /)						
14)	Side Garnish	Lucky	600	120	Lucky	(Lucky) E-363C Lucky
	Mud Guard FRT/RR RH/LB	-	-	-		
	Cowl Top Cover		670	134	PL	A-354S
	Door Scuff FRT/RR RH/LH	JI-350	360	72	PL	FRT:110g×2, RR:70g×2
	Pull Handle					
	Air Grill	J-330	50	10		
	Package Tray					
	Wool Paper	Polyester	-	-		
	Core	Wood Stock	1,300	260		

10% 95 25%, 2000 50% 96 6~7% 9~10%

가

가

10

가

()

30%

三井石油化學/Himont

PP(HCPP)

PP
가

가
가 가 , PP 가

PP
三井石油化學
PP

PP

가

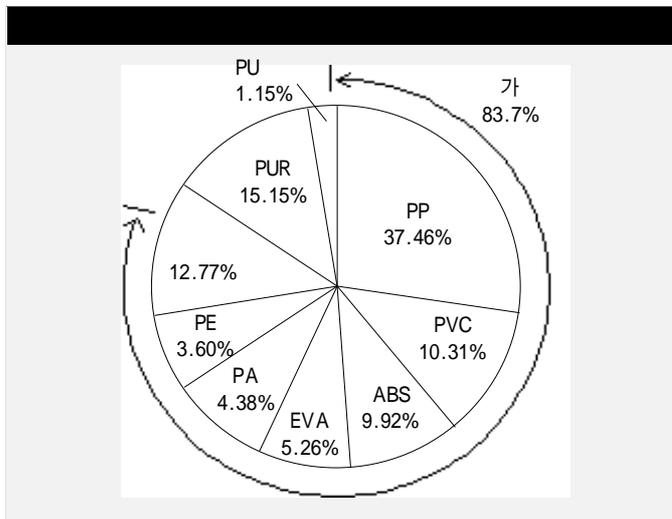
(NMR) 95~97%

99%

ABS가

60

가



2
ABS

가

가

110

ABS

2 가

2 가

Polymer Alloy가

ABS

PC

ABS

가 가

ABS

ABS

ABS

70%

宇部

ABS

가

I/P
가

가

宇部

ABS

ABS/PC

CL

가

, Door Millor,

가

ABS

가

ABS

ABS

EPR

AAS

AES

가 ABS

가

가

가

가

ABS

ABS

ABS

ABS

宇部

ABS

가

ABS

가

GE Plastics가

宇部

GE Plastics

ABS