

Introduction of **GS** Caltex **POLYMER BUSINESS**

 **GS** Caltex Corporation





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 **1.**

Overview of **GS** Caltex

❖ **Company Name** | **GS** Caltex Corporation

❖ **Date of Establishment** | May 19, 1967 (incorporated as Honam Oil Refinery Co., Ltd.)

❖ **Flagship Brand** | **HI-PRENE**[®] **KIXX PRIME** **KIXX**
고급휘발유 고순질 휘발유
Kixx PAO **autoOasis** **joyMart**

❖ **Location** | **Headquarter** **GS** Gangnam Tower, 508, Nonhyeon-ro, Gangnam-gu, Seoul, Korea
R&D Center 359, Expo-ro, Yuseong-gu, Daejeon, Korea
Plant Yeosu Complex, 1056, Wolrae-dong, Yeosu City, Jeonnam Province, Korea

❖ **No. of Employees** | **2,930** (2016)

❖ **Sales Revenue** | **\$21 billion** (2016)



GS Caltex London Branch



GS Caltex **Czech**, s.r.o.

GS Caltex Abu Dhabi Branch



GS Caltex India Private Ltd.



GS Caltex China Co., Ltd.



GS Caltex(**Langfang**) Plastics Co., Ltd.

GS Caltex(**Suzhou**) Plastics Co., Ltd.

GS Caltex(Qingdao) Petroleum Co., Ltd.

GS Caltex(Qingdao) Energy Co., Ltd.

GS Caltex(Jinan) Energy Co., Ltd.

GS Caltex(Yantai) Energy Co., Ltd.



GS Caltex **Mexico**, S.de R.L.de C.V.

GS Caltex Singapore Pte, Ltd.



Propylene



476,000

Tons/Year

RFCC (226,000)

VGO FCC (250,000)

Polymer



460,000

Tons/Year

Polypropylene (180,000)

PP Compound (280,000)*

Aromatics



2,800,000

Tons/Year

The largest
Single facility in the world

PX (1,350,000)

BTX (1,450,000)

Base Oil



26,000

Barrels/Day

Heavy Oil Upgrading



274,000

Barrels/Day

The largest facilities
in Korea

RFCC (94,000)

HCR (61,000)

VRHCR (66,000)

VGO FCC (53,000)

Oil Refining



785,000

Barrels/Day

The fourth largest
single-site in the world

No.1 CDU (120,000)

No.2 CDU (155,000)

No.3 CDU (180,000)

No.4 CDU (330,000)

4 History



- ❖ **1966. 12** | Joint Venture Agreement (Lucky LTD & Caltex Petroleum Corp)
- ❖ **1967. 05** | 'Honam Oil Refinery Company' Foundation
- ❖ **1988. 04** | **Polypropylene Plant Start-up**
- ❖ **1996. 05** | Name Change to LG-Caltex Oil Corp.
- ❖ **2004. 07** | A Subsidiary of **GS** Holdings spun off from LG Group
- ❖ **2005. 03** | Name Change to **GS** Caltex Corp.
- ❖ **2006. 06** | **Established GS** Caltex (Langfang, China) Plastics Co., Ltd.
- ❖ **2007. 12** | **LFT Start-Up** (Long Glass Fiber Reinforced Thermoplastic)
- ❖ **2010. 10** | **Established GS** Caltex (Suzhou, China) Plastics Co., Ltd.
- ❖ **2011. 06** | **Established GS** Caltex Czech s.r.o
- ❖ **2013. 11** | **Jinju Compounding Plant Start-up**
- ❖ **2016. 01** | **Established GS** Caltex Mexico S.de R.L.de C.V.





2.

Polymer Business

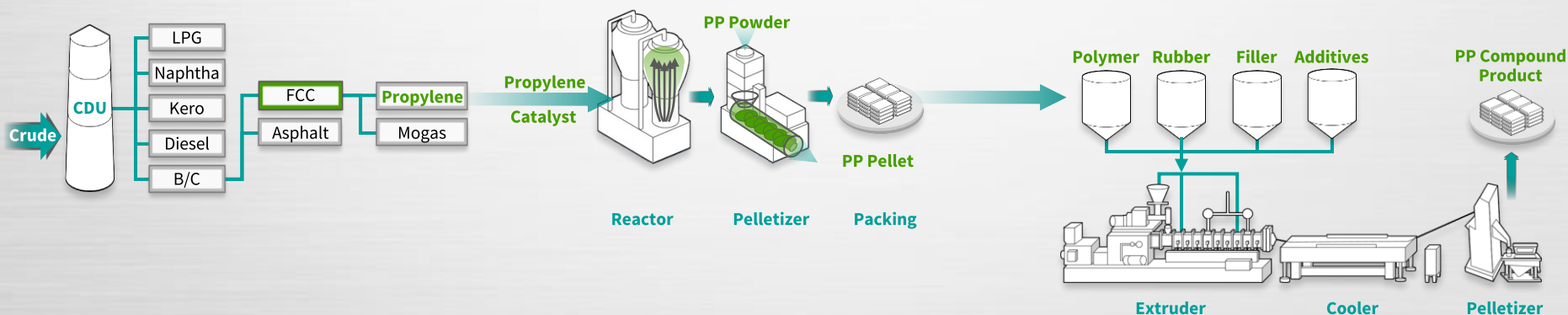
- ❖ **Total Capacity** (Tons/Year) | **936,000**
- ❖ **Total Sales Volume** (Tons/Year) | **814,000**
- ❖ **Total Sales Revenue** (USD) | **908 Million**



❖ **Capacity** (Tons/Year) | **476,000**

❖ **Capacity** (Tons/Year) | **180,000**

❖ **Capacity** (Tons/Year) | **280,000**





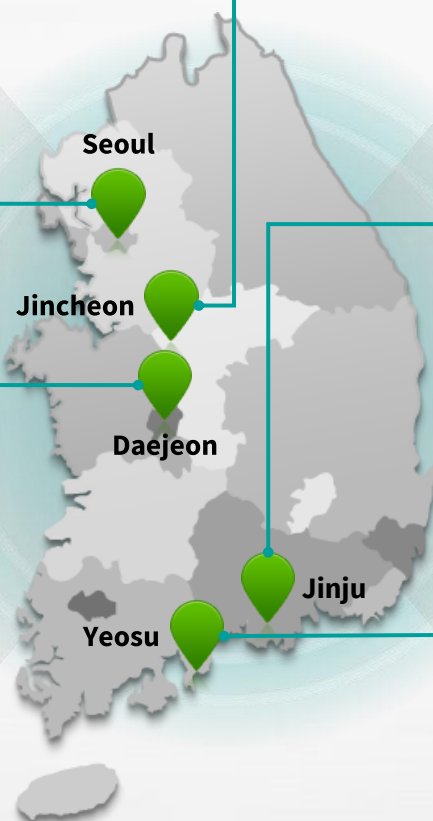
Head Office

- New Business & Planning
- Propylene Business
- Polypropylene Business
- PP Compound Business



R & D Center

- Research & Development of New Material & Process
- Analysis & Technical Service



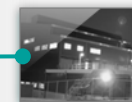
Jincheon Plant

- LFT
- Capacity **11,000** Tons/Year



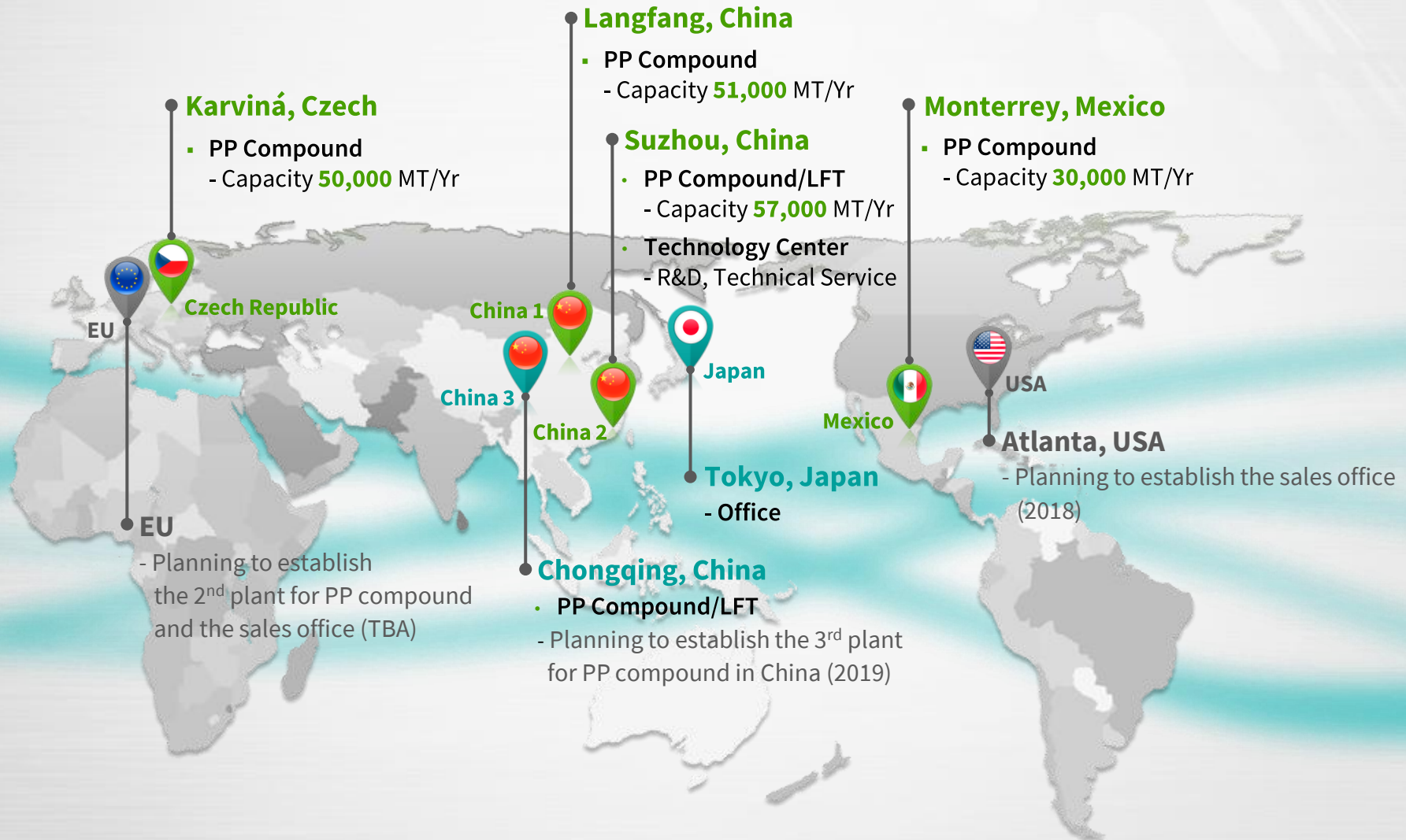
Jinju Plant

- PP Compound
- Capacity **33,000** Tons/Year
- LFT
- Capacity **8,000** Tons/Year



Yeosu Plant

- Polypropylene Plant
- Capacity **180,000** Tons/Year
- PP Compound
- Capacity **40,000** Tons/Year





3.

PP Compound

Capacity (Tons/Year)

Domestic | **92,000** | Overseas | **188,000**

Sales Revenue (USD)

450 Million

Products

- **Automotive Parts** | Instrument Panel, Bumper, etc.
- **Home Appliance Parts** | Washing Machine Drum Tub, etc.
- **Industrial Materials**

Customers

- Hyundai Kia Motors, GM, Ford, Renault-Nissan, Toyota, Honda, Mazda, Suzuki, Tesla, BMW, Mercedes Benz, Škoda, Geely, Changan Automobile, Great Wall Motors, etc.
- LG Electronics, Samsung Electronics, Whirlpool, Haier, Media, Toshiba, etc.



Plant in Yeosu
Korea

40,000MTA



Plant in Jincheon
Korea

11,000MTA



Plant in Jinju
Korea

41,000MTA



Plant in Langfang
China

51,000MTA



Plant in Suzhou
China

57,000MTA



Plant in Karviná
Czech Republic

50,000MTA



Plant in Monterrey
Mexico

30,000MTA

Automotive Parts

❖ Exterior & Engine Room Parts

Bumper, Fan Shroud,
HVAC Unit, Cowl Top Cover,
Lamp Housing,
Side Garnish



❖ Interior & Pillar Parts

Pillar Trim,
Instrument Panel,
Glove Box, Console,
Door Trim



Home Appliance Parts

❖ Washing Machine

Body Drawer, Lift, Inner Door,
Gasket, Blower Housing,
Duct, Drum Tub

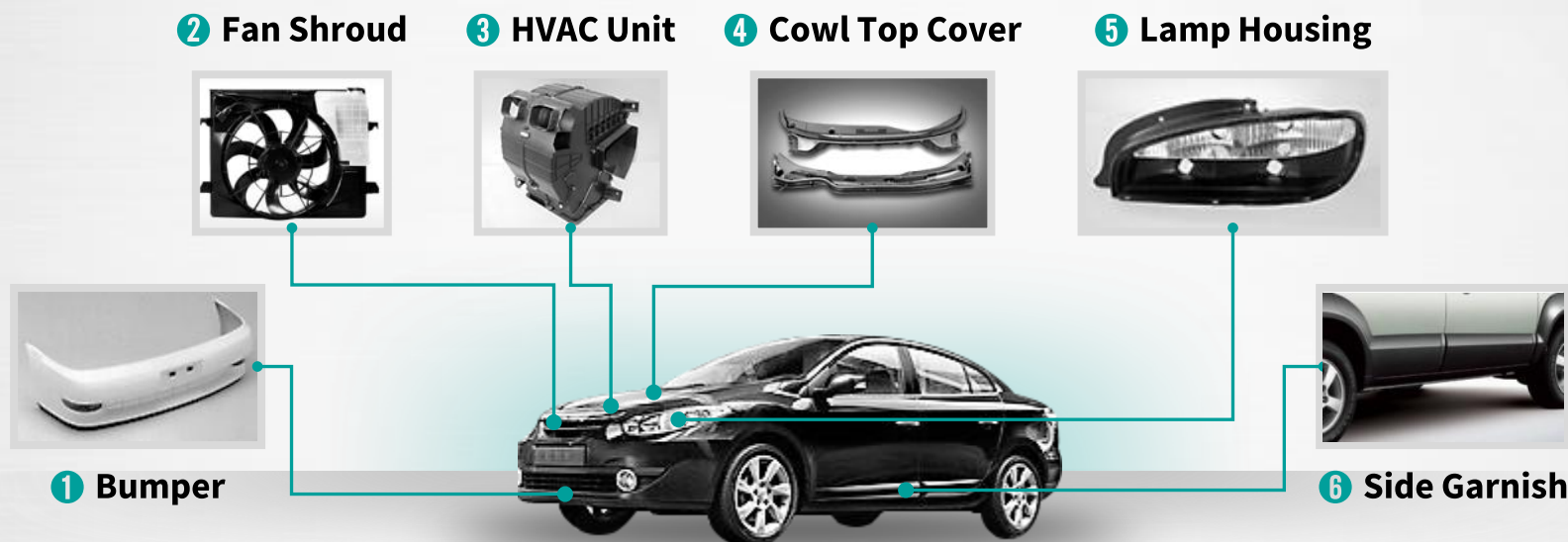


❖ Air Conditioner

Drain Pan, Cabinet In,
Fan Bosc, Turbo Fan,
Grill Pan



Exterior & Engine Room Parts



Commercial Products List

1 Bumper

- MR41 (PP+TD10)
- MR71(S) (PP+TD20)

2 Fan Shroud

- HG43HL, HG43RT (PP+SGF30)
- HT44B (PP+TD40)

3 HVAC Unit

- MT42HJ (PP+TD20)
- HM44 (PP+Mica40)
- HT45 (PP+TD50), HT54G (PP+TD40)

4 Cowl Top Cover

- MT52GC (PP+TD20)
- MT44CT (PP+TD40)

5 Lamp Housing

- MT42HJ (PP+TD20)
- MT43 (PP+TD30)

6 Side Garnish

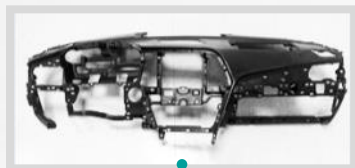
- MR43SM, MR63SM (PP+EPDM)

Interior & Pillar Parts

1 Pillar Trim



2 Instrument Panel



3 Glove Box



5 Door Trim



4 Console

Commercial Products List

1 Pillar Trim

- MT61HS (PP+TD5)
- MT62HS (PP+TD20), MT62HI (PP+TD20)
- MT42HS (PP+TD20)

2 Instrument Panel

- MT42IN (PP+TD20), MT42TB (PP+TD20)
- MT62CP (PP+TD25), MT62CS (PP+TD20)
- MT63I (PP+TD30)

3 Glove Box

- MT42HS (PP+TD20), MT62CS (PP+TD20)

4 Console

- MT62HS (PP+TD20)

5 Door Trim

- MT61LT (PP+TD5), MT62DT (PP+TD20)
- MT61DT (PP+TD10)
- MM71D, MM71T (PP+Mica10)

LFT (Long Fiber reinforced Thermoplastic)

※ LGF : Long Glass Fiber / LCF : Long Carbon Fiber

Instrument Panel
- Soft Type : PP+LGF20



Door Module Panel
- PP+LGF20, 30



Sunroof Frame
- PA6+LCF20



Tailgate Inner
- PP+LGF40



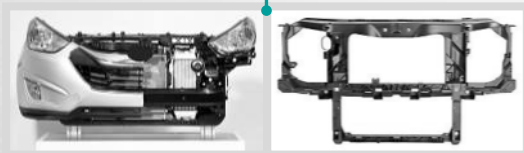
Rear Seat Cushion Frame Assembly
- PP+LCF15



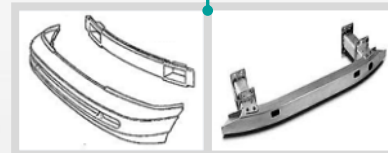
Engine Cover
- PP+LGF+Glass Bubble



Side Mirror Frame
- PP+LGF60



FEM Carrier
- PP+LGF30, 40

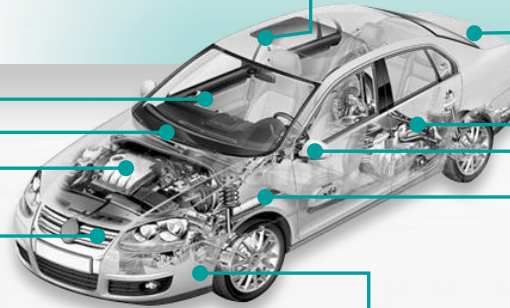


Bumper Back Beam
- PP+LGF50



Transmission Gear Shift
- PP+LGF40

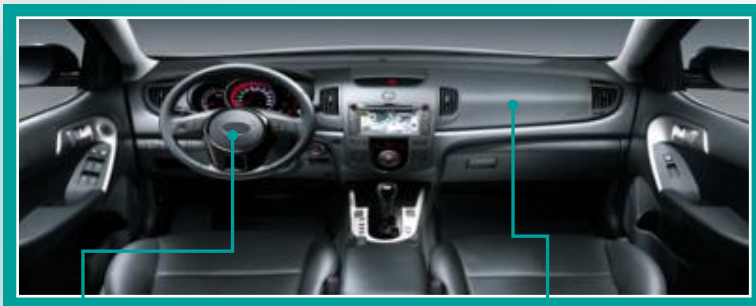
Accelerator Pedal Module
- PP+LGF50



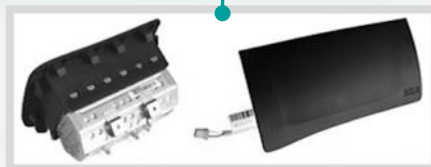
TPE (ThermoPlastic Elastomers)

Airbag

- **TPE-O** (Driver, Passenger, Curtain Airbag)



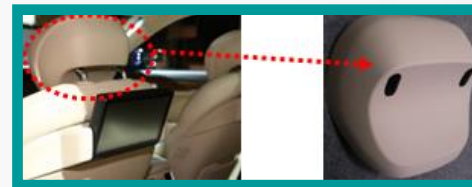
Driver Airbag Cover



Passenger Airbag Door

Soft Skin

- **TPE-S** (Injection Moldable Skin)



Headrest Back



Instrument Panel Skin

Integrated Trim

- **TPE-O + LGF** (High Stiffness TPE)



Door Trim

Washing Machine



Commercial Products List

① Body Drawer

- MT42 (PP+TD20), MT43 (PP+TD30)

② Lift, Inner Door, Gasket

- MT42 (PP+TD20)

③ Blower Housing

- HG41T (PP+SGF10)

④ Duct

- HT42 (PP+TD20)

⑤ Drum Tub

- HLG41S (PP+LGF15)
 - HG41TSA (PP+SGF15)
 - HG425 (PP+SGF25)

Air Conditioner

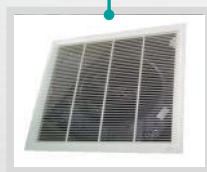
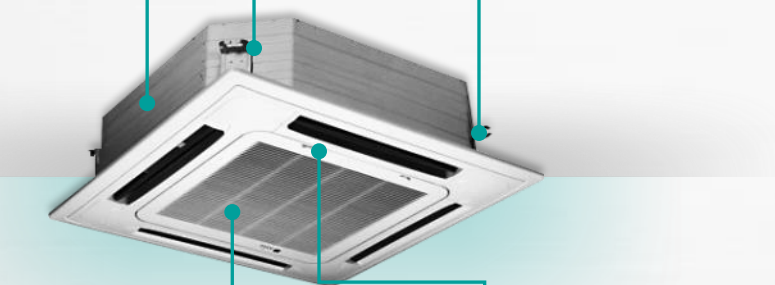
① Drain Pan



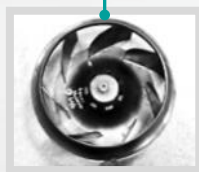
② Cabinet In



③ Fan Bosc



⑤ Grill Pan



④ Turbo Fan

Commercial Products List

- ① Drain Pan
 - HLG51SG (PP+LGF10)
- ② Cabinet In
 - HLG51S (PP+LFG10)
- ③ Fan Bosc
 - T540AFB (TPE)
- ④ Turbo Fan
 - HLG72A (PP+LGF30)
- ⑤ Grill Pan
 - MT72G (PP+TD20)

High Value Added**Weight Reduction****Eco-Friendly****PP Compound**

- Low Density/Foaming
- Long-term Stability
- Low Emission

LFT

- PP-LGF Grade
- PP-LCF Grade
- PA-LCF Grade

TPE

- TPO Grade
- TPS Grade
- TPS-LGF Hybrid Grade



THANK YOU!

Introduction of **GS** Caltex Polymer Business

