



## Powertrain

# Turbo Charger Outlet T-Joint

### *OEM/Vehicle*

Hyundai Motor Company  
2018 Genesis G80, Kia Stinger

### *System Supplier*

Hwaseung R&A Co., Ltd.

### *Material Processors*

Songwoo Industrial  
Seji Solotech, Inc.

### *Material Supplier*

DuPont Korea Inc.

### *Resin*

PA66



A 42% weight and 35% cost reduction, and improved airflow reducing the pressure drop (-8kPa) to increase fuel economy and improve NVH performance was achieved by designing and molding this part with plastic compared to the previous aluminum die cast part. Air flow noise was also reduced and long term durability increased via the rib pattern design. Special 3-gate positioning tooling was designed to minimize stress in weld-line area for strength and durability and for processing optimization. A new 35% glass fiber reinforced, heat stabilized polyamide 66 resin was developed for good retention of properties over time at temperatures up to 220 degrees C.