

# Extraordinarily tough automotive parts

Energy lives here™

Challenge reality and rethink what's possible in automotive performance.



- **Step-out toughness/stiffness balance**
- **Opportunity to lightweight**
- **35% higher impact**
- **Up to 50% less plastomer use**

With higher impact than standard impact copolymers (ICP), Achieve™ Advanced polypropylene (PP) enables tougher, lighter vehicle components that are durable and safe.

## Create new vehicle designs

Through collaboration, Achieve Advanced PP enables customers to **create new vehicle designs** with improved performance – that **do more with less**.

It increases the opportunity to use PP in vehicle designs, ultimately leading to lighter weight parts that can improve efficiency in conventional cars and 'new energy vehicles' (NEVs).

Achieve Advanced PP can be used neat or in compounds for vehicle components such as:

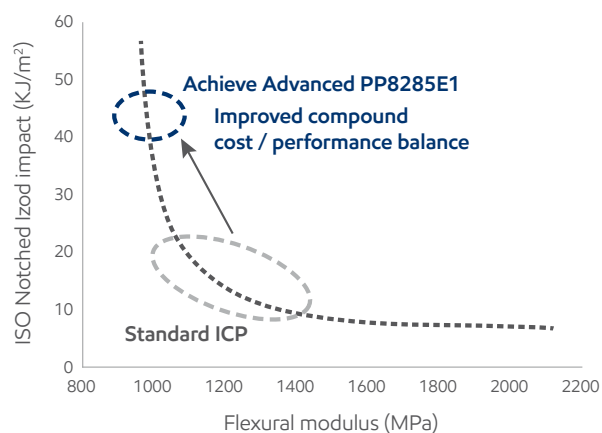
- **Interior parts** - instrument panels, door panel trim, and pillar trim
- **Exterior body parts** - bumper fascia and wheel well liners

Achieve Advanced PP provides a step-out toughness and stiffness balance with exceptional cold temperature properties. It offers 35% higher impact and 20% improved toughness (low temperature ductility) than standard ICP.

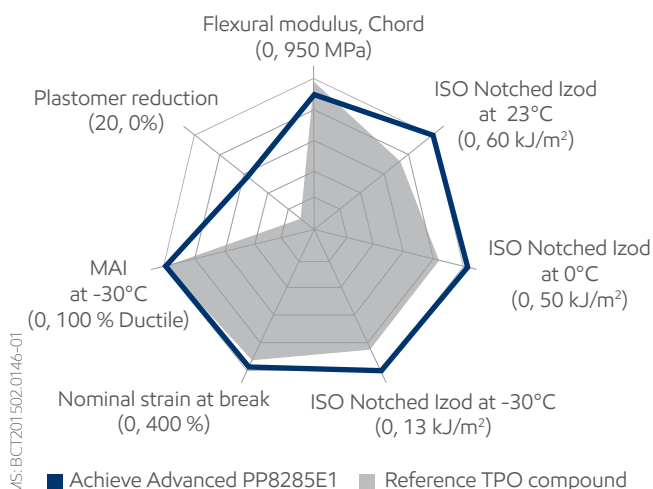
Plastomer loading can be reduced by 50%, to simplify formulations and provide significant cost saving opportunities.

With **multi-region supply** of consistent quality materials that can meet specifications globally, Achieve Advanced PP can help optimize qualification time and cost.

**Figure 1:**  
Selected property data for Achieve™ Advanced PP8285E1 and the reference.



**Figure 2:**  
Selected property data for compounds with Achieve Advanced PP8285E1 and the standard ICP reference. Plastomer loading reduced from 20% in the reference TPO compound to 10% in the Achieve Advanced PP8285E1 compound.



Grade	MFR (230°C/2.16 kg) g/10 min	Tensile stress at yield MPa	Flexural modulus 1% secant (2.0 mm/min) – MPa	Flexural modulus 1% secant (0.051 in/min) – psi	Notched Izod impact (23°C) – J/m	Notched Izod impact (23°C) kJ/m²	Notched Izod impact (-20°C) kJ/m²	Heat distortion temperature (0.45 MPa) °C
Achieve Advanced PP8285E1	30	19.9	1020	144000	No break	46	6.8	82.8
	ASTM D1238	ISO 527-2	ISO 178	ASTM D790A	ASTM D256A	ISO 180/1A	ISO 180/1A	ISO 75-2/B

Values given are typical and should not be interpreted as specifications. Data generated by or on behalf of ExxonMobil Chemical. Test methods are based on the ASTM and/or ISO standards.

## Use Achieve™ Advanced PP to challenge reality in automotive performance.

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