ExxonMobil
Signature Polymers

Factsheet

Exceed™ high performance PP

Design for high performing, yet appealing battery cases

Exceed™ AP3AW is an impact copolymer (ICP) polypropylene (PP) resin designed for high performance automotive and other battery case applications.

- Enhanced product performance
- Good heat and UV resistance
- Cost reduction opportunities
- Distinct ivory appearance

Data and results presented herein apply specifically to the noted application under this fact sheet. Your results may differ depending on factors such as operating conditions, equipment and materials used.

Enhanced product performance

Exceed™ AP3AW is a medium melt flow rate (MFR10 g/10min) ICP PP resin providing an enhanced stiffness-impact balance, low warpage and good weldability for demanding battery case applications.

Good heat and UV resistance

The good heat and UV resistance makes it especially suitable for use at higher service temperatures and in outdoor environments for extended periods.

Cost reduction opportunities

This medium MFR ICP PP resin offers opportunities to reduce costs through improved cycle times, while reducing or eliminating flow marks for better appearance.

Distinct ivory appearance

It is formulated to have a distinct ivory appearance for natural color battery cases, making it appealing to consumers in the after-sales market.

Exceed™ AP3AW resin - thermal stability and UV stability (Xenon weathering) test properties

Properties	Test method based on	Unit	Typical value	
MFR (230°C/2.16 kg)	ASTM D1238	g/10 min	10	
Flexural modulus (2.0 mm/min)	ISO 178	MPa	1340	
Heat deflection temperature (0.45 MPa)	ISO 75-2/Bf	°C	92.5	
Gardner impact strength (-29°C, 3.2 mm, Geometry GC)	ASTM D5420	J	18.1	
Thermal stability (150°C)	ASTM D3012	Hours	456	
UV stability on natural color (1250 kJ/m² at 340nm)	SAE J2527		As molded	After 45 days
Tensile strength at yield (50 mm/min)	ISO 527-2	MPa	26.1	26.4
Elongation at yield (50 mm/min)	ISO 527-2	%	4.6	5.7
Notched Izod impact strength (23°C)	ISO 180/1A	kJ/m²	9.1	6.3 (69% retention)
Appearance				
Color change, ΔE	SAE J1545			2.6
60° gloss retention	ASTM D523	%		125

Value given are typical and should not be interpreted as specifications. Data generated by or on behalf of ExxonMobil.

What's new: ExxonMobil Signature Polymers

All our polymers are now positioned under a single portfolio brand: Signature Polymers. The aim is to simplify our product architecture and naming to improve portfolio navigation for you. We would like to stress that our commitment to high quality products remains the same, it is the names that change. Everything else remains the same. We will be making these modifications over the next six months so you will see both old and new grade names highlighted during that time.

Here's a quick overview of brands and grade names that have changed in this document:

Legacy Commercial Name	New Commercial Name
ExxonMobil™ AP3AW	Exceed™ AP3AW

Some of our existing Exceed, Achieve, Paxon and premium PP/HD grades have moved to Exceed brand; most existing Enable grades have moved to Exceed Flow[+]; most of our existing Exceed XP grades have moved to Exceed Tough[+]; most of our existing Exceed S grades have moved to Exceed Stiff[+]. More details here **https://www.exxonmobilchemical.com/en/brands/signature-polymers/exceed_high_performance_polymers** or contact your ExxonMobil representative to know more.

Want to see what's changed in our portfolio? Go to **exxonmobilchemical.com/sptransform**

Contact us for more information: **exxonmobilchemical.com/pp**

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