

Polypropylene Copolymers for Automotive and Compounding

Driving New Levels of Performance Innovation and Added Value



Surpassing Industry Standards With High-Performance, Sustainable Polypropylene

Braskem's broad polypropylene (PP) portfolio outperforms traditional copolymers to meet the needs of today's sophisticated automotive and compounding applications. Benefit from the legendary performance that helps our customers add value to a wide range of innovative downstream solutions:

- Reduced wall-thickness capabilities enable production of more finished goods using less raw material;
- Light-weighting opportunities mean lower transport costs, improved fuel economy and reduced emissions;
- Unique balance of stiffness, toughness and flow properties offer exceptional competitive advantages for multiple end-uses;
- Braskem targets platforms for technology and joint innovation that ensure consistency across global markets and specifications.

Accelerating Innovation and Speed to Market

Two technologically integrated centers located in Pittsburgh, PA and Triunfo, RS, Brazil employ more than 240 specialized professionals who work closely with customers on joint product and application development. These state-of-the-art facilities feature:

- Pilot-scale equipment that replicates customer production environments for more true-to-life polymer test results that advance turnaround time;
- Compounding and applications operations that create formulations based on customer needs:
- On-site analytical labs that provide tools to understand performance requirements;
- Catalyst labs that develop experimental polymers and test new physical properties;

 Applications labs with small-scale conversion equipment that analyze developmental polymers.

Reliable, Responsive Service and Supply

We're focused on being responsive to our North American customer needs with service levels and supply

security unmatched by the competition.

At the heart of this responsiveness is geographic diversity that provides reliable sourcing, with production facilities in Pennsylvania, West Virginia and Texas.

Customer-driven Innovation

We understand the importance of a competitive and dependable supply of high-quality products you regularly purchase. But applications often come along that require new levels of performance. You can rely on Braskem to provide the technical expertise that meets your product differentiation requirements.









Expanding production and end-use requirements in automotive and compounding drive continuous improvements in performance, processability and competitiveness. Braskem addresses these rapidly changing needs with product innovation which offers an unprecedented balance of properties.

The Unique 2000 Series Impact Copolymers

The new 2000 Series Impact Copolymers are designed to meet industry trends for higher levels of productivity and quality. Benefit from this exceptional balance of properties which is unmatched by the competition:

- High stiffness and flow performance;
- Reduced emissions;
- Low gels;
- Suppressed tiger marking.

Achieving Design Freedom With High Crystallinity Homopolymers

Developed for the automotive compounds and technical parts market, our high crystallinity homopolymers provide premium levels of stiffness and flowability, which offer greater design options in compound development:

- Wide range of melt flow rates;
- High stiffness for improved downstream product performance.

We're in Your Corner!

High MFR Aesthetics



Braskem Impact Copolymers (Selection of Grades)

2000 Series Impact Copolymers			
Product	MFR (g/10min)	Flex Mod (psi)	N.Izod (ft-lb/in)
TI-2150C	15	200,000	1.5
TI-2350C	40	230,000	1.0
TI-2600C	66	240,000	0.9
TI-2900C	110	230,000	0.7
High Crystallinity Homopolymers			
F020HC	2	300,000	
D118	8	330,000	
F350HC2	35	290,000	
F1000HC	110	300,000	
Broad Range of Impact Copolymers			
TI-4003F	0.3	210,000	NB
C702-20	20	150,000	3.5
C700-35N	35	210,000	1.3
TI-4900M	115	210,000	0.7
High Melt Flow, High Impact Copolymers			
C7079-25R NA	25	155,000	NB
TI-6500WV	50	170,000	1.3
C7074-75NA	75	150,000	2.0
TI-6800WV	80	155,000	2.3

Among the Industry's Broadest Impact Copolymer Portfolios

Depend on Braskem to meet impact copolymer performance needs with a broad portfolio featuring:

- Entire range of melt flow rates, from fractional to 115;
- High melt strength resins for target market opportunities;
- Unmatched continuity throughout the traditional design space of impact copolymers.

Toughness

Stiffness

Braskem

Expanding the Boundaries of Compounds With High Toughness, High Flow Impact Copolymers

Braskem's high toughness, high flow impact copolymers allow producers to explore the production of compounds previously unachievable. This evolution in Braskem's portfolio aims to provide a greater balance of processability and toughness, which adds tremendous versatility and flexibility for customers. Benefits include:

- Improved toughness vs. traditional impact copolymers for environments requiring very high impact resistance;
- Enhanced properties at low viscosity for compounding flexibility and performance;
- Exceptional cold temperature impact resistance;
- Very high toughness for improved flexibility in downstream formulation development.

Global Thermoplastics Leadership

Braskem is the largest thermoplastic resins producer in the Americas and a major global player in the polypropylene, polyethylene, PVC and chemicals markets. Committed to the principles of sustainable development since its formation in 2002, Braskem is also the world leader in biopolymers. The company is focused on using its technology and innovation strengths to set industry standards in service and support.

Braskem America is a leading producer of polypropylene in the U.S. Headquartered in Philadelphia, the company operates five production facilities located in Texas, Pennsylvania and West Virginia, and a Technology and Innovation Center in Pittsburgh. Braskem America is a wholly owned subsidiary of Braskem S.A.

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