

# Polypropylene for Rigid Packaging Applications



**Braskem** 

# Innovation is the tool that drives us in the pursuit of our **long-term commitments with sustainable development**

Our purpose is to improve people's lives by creating sustainable solutions through chemicals and plastics.

In line with the **UN 2030 sustainable development goals**, Braskem took on long-term goals with people and the planet in 2020. Working in three priority and four complementary dimensions, we are looking to achieve these goals through innovation.



**Eliminating plastic waste**



**Mitigating Climate Change**



**Social Responsibility & Human Rights**

An ecosystem developed to represent Braskem's products, technologies and initiatives that help drive the circular economy.



A portfolio of products made from sugarcane that captures CO<sub>2</sub> from cradle-to-gate, helping mitigate climate change.



All our polypropylene grades are available with **ISCC+ certification**, using the **mass balance method with bio, circular or bio-circular feedstocks\***, ensuring sustainability and traceability across the supply chain.

## Rigid Packaging

Braskem's polypropylene is a versatile material used in a wide range of rigid packaging applications such as cold chain, transparent packaging, food containers and beverage caps. Polypropylene is modified with specific additives and stabilizers to meet the individual needs of manufacturers, offering **cost-effective, innovative solutions** that enhance packaging strength, durability and product protection.





## Injection Molding

Injection molding is used to manufacture packaging including containers for food and beverage. Braskem offers a diverse range of PP products that deliver excellent processing, mechanical and optical properties.

### INSPIRE 252

Ultra-clear polypropylene homopolymer designed to replace polystyrene in injection molding applications.

#### Key benefits:

- Outstanding transparency
- Extreme stiffness
- Food approved even for microwave applications



## Thermoforming

Thermoforming creates lightweight, high-clarity packaging like trays, lids and clamshells for food and retail products. Braskem's PP resins ensure food packaging quality, organoleptics and high product safety for lightweight, durable packaging.

### INSPIRE 122

Advanced polypropylene copolymer offering unmatched properties for food packaging solutions such as seafood and meat trays (MAP).

#### Key benefits:

- Excellent transparency
- High stiffness for outstanding top load properties
- Superior impact strength
- Easy processing and blending with Homo-PP (e. g. INSPIRE 215)

## INJECTION MOLDING

		Melt Flow Index (230 °C / 2,16 kg)	Flexural Modulus	Notched Charpy Impact Resistance @23 °C	Additives*
	Method	ISO 1133	ISO 178	ISO 179	-
	Units	g/10 min	MPa	kJ/m <sup>2</sup>	-
HOMO	DH789.01	50	1700	2,5	N, AS
		balanced <b>physical properties</b> , excellent <b>organoleptics</b> , easy <b>processing</b> , low <b>warpage</b> , thin <b>wall injection molding</b> , short <b>cycle times</b>			
	H734-52RNA2	52	1800	2,5	N, AS
		balanced <b>physical properties</b> , easy <b>processing</b> , low <b>warpage</b> , thin <b>wall injection molding</b> , short <b>cycle times</b>			
F1000HC2		110	2290	1,5	N
		high <b>crystallinity</b> for superior stiffness, high <b>flowability</b> , designed for <b>thin wall injection molding</b> and <b>compounding</b>			
RACO	RSP230NA	23	1200	6	N, AS
		balance of <b>stiffness &amp; impact</b> resistance, very good <b>optical properties</b> , easy <b>processing</b> , good <b>organoleptics</b> , thin <b>wall injection molding</b> , <b>caps &amp; closures</b>			
	RG450NA	42	1050	5,5	N, AS
		high <b>flowability</b> , excellent <b>optics &amp; organoleptics</b> (low taste and odor), balance of <b>mechanical properties</b> , thin <b>wall injection molding</b> like food containers			
	INSPIRE 364	42	1050	5,5	N, AS
		high <b>flowability</b> , excellent <b>optics &amp; organoleptics</b> (low taste and odor), balance of <b>mechanical properties</b> , thin <b>wall injection molding</b> like food containers			
INSPIRE 382	70	1050	5	N, AS	
	high <b>flowability</b> , excellent <b>optics &amp; organoleptics</b> (low taste and odor), balance of mechanical properties, thin <b>wall injection molding</b> for consumer products				
RSP1000NAR	100	1050	4,5	N, AS	
	very high <b>flowability</b> , excellent <b>optics</b> , good <b>stiffness/impact</b> balance, thin <b>wall injection molding</b> for consumer goods, <b>downgauging</b>				
ICP	C705-44NAHP	44	1500	7	N, AS
		high <b>flowability</b> , superior <b>stiffness</b> , good <b>impact performance</b> , excellent <b>antistatic properties</b> , thin <b>wall injection molding</b> for containers/consumer products			
	CD700NAQ	70	1200	8	N, AS
		high <b>flowability</b> , high impact <b>strength at low temperature</b> , low <b>shrinkage &amp; warpage</b> , thin <b>wall injection molding</b> for houseware, pails, freezer applications			
	CG700NA	70	1350	6	N, AS
	high <b>flowability</b> , good balance of <b>mechanical properties</b> even at <b>low temperature</b> , good <b>organoleptics</b> , thin <b>wall injection molding</b> for containers, houseware				
C7069-100NA	100	1500	5	N, AS	
	very high <b>flowability</b> , excellent balance of <b>mechanical properties</b> , short cycle <b>time injection molding</b> for thin wall containers, food consumer products, downgauging				
SPECIALTY	INSPIRE 252	52	1950	3	N, AS
		specially <b>clarified HomoPP</b> , high <b>flowability</b> , excellent <b>optics</b> (low haze!), superior <b>organoleptics</b> , hot <b>filling</b> , thin <b>wall injection molding</b> , <b>microwave</b> applications			
DCP284RD.01	14	1100	50	N, AS	
	superior balance of <b>stiffness and toughness</b> , excellent <b>impact strength</b> , easy <b>processing</b> , <b>designed for impact</b> requiring containers like medical waste bins/toolboxes				

\*Additives: N = Nucleated, AS = Antistatic



## ► THERMOFORMING

		Melt Flow Index (230 °C / 2,16 kg)	Flexural Modulus	Notched Charpy Impact Resistance @23 °C	Additives*
	Method	ISO 1133	ISO 178	ISO 179	-
	Units	g/10 min	MPa	kJ/m <sup>2</sup>	-
RACO	INSPIRE 318	1,7	900	22	N
	superior <b>clarity, gloss</b> and <b>surface finish</b> , high <b>distortion temperature</b> , specially for extrusion blow molding/film extrusion/thermoformed packaging				
ICP	INSPIRE 122	2,2	1400	50	N, AS
	<b>next generation ICP</b> , extremely <b>high impact strength</b> , excellent <b>optics</b> , good <b>organoleptics</b> , <b>extrusion, thermoformed sheets</b> for thin wall containers				
HOMO	INSPIRE 215	2,1	1700	5	N, AS
	superior <b>stiffness/impact balance</b> , high <b>temperature resistance</b> , excellent <b>optical/organoleptic properties</b> , <b>sheet extrusion, thermoformed food packaging</b>				
	F030HC	3,3	2150	3,5	N
high <b>crystallinity</b> for superior <b>stiffness</b> , high <b>temperature resistance</b> for hot filling, good <b>organoleptics</b> , <b>sheet extrusion, thermoformed food packaging</b>					

\*Additives: N = Nucleated, AS = Antistatic

# Braskem

## Global Presence

With a **global, human-oriented vision of the future**, Braskem strives every day to improve people's lives by creating sustainable solutions in chemistry and plastics. Braskem is the largest producer of thermoplastic resins in the Americas and a **global leader in the production of biopolymers on an industrial scale**.

Our products are exported to some **70 countries** and we count on 40 Industrial units, located in Brazil, the United States, Germany and Mexico (in partnership with Mexican company Idesa). For more information, visit [www.Braskem.com](http://www.Braskem.com).



Clients in  
more than  
**70**  
countries

More than  
**8.500**  
team  
members

**6<sup>th</sup>**  
largest producer in PE,  
PP and PVC

**#1** producer PE, PP and PVC  
in the Americas

**#1** PP producer in North America

**#1** PE, PP and PVC producer  
in Latin America

**40**  
industrial units:

  
**29** plants

  
**4** plants

  
**5** plants

  
**2** plants

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