

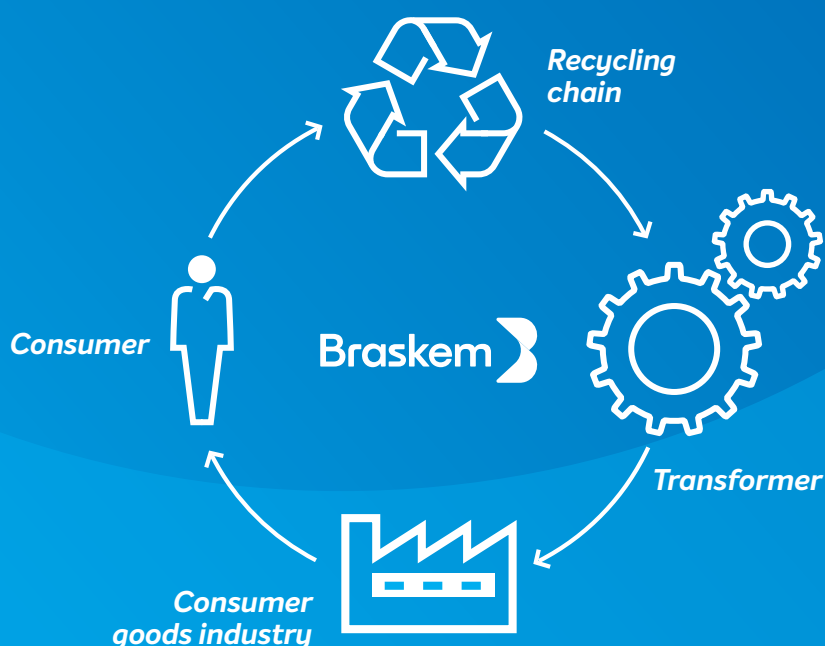


## Portfolio of resins with recycled contents.

A Braskem innovation aiming to foster business and initiatives to value post-consumed plastic residues and the recycling chain.

The development of products and solutions based on plastic residues is carried out by means of partnerships with clients, recyclers, cooperatives and brand owners.

The portfolio strengthens Braskem's commitment with the plastic chain in Brazil, through innovation and sustainability, aligned with our positioning in the Circular Economy.



***In the Circular Economy,  
nothing is wasted,  
everything is transformed.***

### **Value for the brand and for your company.**

The Wecycle seal can be used by companies to identify their products using recycled plastic, meeting the requirements and expectations of evermore aware and demanding consumers.



For Braskem, the **Circular Economy** is the reuse of products and resources in a new cycle.

This movement starts with the reeducation of the productive sector and the way how we consume each product.



Control properties		Typical properties				
Flow Rate (190/2.16)	Density	Ultimate tensile strength (DM/DT)	Yield strength (DM/DT)	Secant Modulus of Elasticity @ 1% (DM/DT)	Dart Impact Test Resistance	Elmendorf Tearing Test Resistance (DM/DT)

#### High density polyethylene

ASTM Method	D 1238	D 792	–	–	–	–
Units	g/10 min	g/cm <sup>3</sup>	–	–	–	–
Values	0.2 to 0.6	>0.955	–	–	–	–

#### WCL R703 PCW

High density polyethylene resin with contents of domestic postconsumer residues (70%) of mostly white coloration.

**Applications:** Small volume air blows: cleaning products with low aggressiveness by action of stress cracking agents.

#### Low linear density polyethylene

ASTM Method	D 1238	D 792	D 882	D 882	D 882	D 1709	D 1922
Units	g/10 min	g/cm <sup>3</sup>	MPa	MPa	MPa	g/F50	gF
Values	0.1 to 0.9	0.92 to 0.93	24/23	9/11	199/234	165	120/646

#### WCL L004 SCV

Polyethylene with low linear density and contents from industrial postconsumer residues (100%). Green color.

**Applications:** sacks for industrial usage; liners; mixtures with PEBD, PEBDL and PEAD and general use packagings.



Control properties		Typical properties				
Flow Rate (230°C/2.16 kg)	Density	Secant Flexure Modulus @ 1%	Tensile Yield Stress	Yield Strain	Rockwell Hardness	

#### Polypropylene – WCL H003 CDC

ASTM Method	D 1238	D 792	D 790	D 638	D 638	D 785
Units	g/10 min	g/cm <sup>3</sup>	MPa	MPa	%	–
Values	10	0.93	1,300	33	10	95

#### WCL H003 CDC

WCL H003 CDC is a polypropylene homopolymer with recycled contents (100%), obtained from recycling of one-way plastic glasses. It features good rigidity and high repeatability of properties. Light green color.

**Applications:** domestic utilities, products for gardening and bottle caps.

#### Polypropylene – WCL H003 BBM and WCL H003 BBV

ASTM Method	D 1238	D 792	D 790	D 638	D 638	D 785
Units	g/10 min	g/cm <sup>3</sup>	MPa	MPa	%	–
Values	10	0.93	1,370	33	10	95

#### WCL H003 BBM

Wecycle WCL H003 BBM is a polypropylene homopolymer with recycled contents (100%), obtained from recycling of Big Bags. It features good rigidity and high repeatability of properties. Brown color.

**Applications:** domestic utilities, products for gardening and bottle caps.

#### WCL H003 BBV

Wecycle WCL H003 BBV is a polypropylene homopolymer with recycled contents (100%), obtained from recycling of Big Bags. It features good rigidity and high repeatability of properties. Green color.

**Applications:** domestic utilities, products for gardening and bottle caps.



Control properties		Typical properties		
Flow Rate (230°C/2.16 kg)	Density	Secant Flexure Modulus @ 1%	Izod Impact Test Resistance @ 23°C	

#### Polypropylene – WCL C003 BTP

ASTM Method	D 1238	D 792	D 790	D 256
Units	g/10 min	g/cm <sup>3</sup>	MPa	MPa
Values	14	0.95	950	65

#### WCL C003 BTP

Wecycle WCL C003 BTP is a polypropylene copolymer with recycled contents (100%), obtained from recycling of industrial buckets, mainly used in bottling printer ink and road demarcation paint. Black color.

**Applications:** general injection.