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Braskem Idesa 

RPR 3A1 NL

RPR 3A1 NL is a High Density Polyethylene copolymer resin containing 30% Post-Consumer Recycled (PCR) HDPE. Its properties are comparable to virgin HDPE resins and has an outstanding stress-cracking resistance (ESCR) making it ideal for use in a wide range of blow molding applications.

Applications:

Containers, small bottles, blow molding of containers up to 20 L for chemicals, domestic and oils.

Process:

Blow molding and extrusion.

Blow Molding:

	Test Methods	Units	Values
Melt Flow Rate (190° C/2.16 kg)	D1238	g/10 min	0.30
Density	D792	g/cm ³	0.955

Typical Properties¹:

	Test Methods	Units	Values
Tensile Strength at Yield	D638	MPa	29
Elongation at break	D638	%	>400
Tensile modulus of elasticity (secant 1% method)	D638	MPa	1300
Flexural modulus (secant 1% method)	D790	MPa	1300
Izod impact strength	D256	J/m	135
ESCR ² (IGEPAL 10%)	D1693	h	84
ESCR ² (IGEPAL 100%)	D1693	h	1000

¹ Test specimens from compression molded plaque according to ASTM D4703.

² B Condition.



Final Observations:

1. The information in this document is provided in good faith and reflects typical values obtained in our laboratories and should not be considered as absolute nor warranted. Only the properties and values mentioned on the Certificate of Quality are considered as product warranty.
2. In some applications, **Braskem Idesa** has developed resins well-tailored to meet specific requirements.
3. In case of doubts regarding our product use or for other applications, please contact our **Braskem Idesa** technical services serviciotecnico@braskem.com
4. For information about safety, handling, individual protection equipment, first aid and disposal, consult the Safety Data Sheet (SDS) or please contact our **Braskem Idesa** safety team product.safety@braskem.com
CAS Number: 25213-02-9.
5. The values reported in this document may change without **Braskem Idesa** previous communication.
6. **Braskem Idesa** does not recommend the use of this product for the manufacture of packages, parts or any other product used for storage or contact with parenteral solution nor with the inside of the human body.
7. The content of this Product Data Sheet replaces the one issued previously.

RPR 5A1 WE

RPR 5A1 WE is a High Density Polyethylene copolymer resin containing 50% Post-Consumer Recycled (PCR) HDPE. Its properties are comparable to virgin HDPE resins and has an excellent stress-cracking resistance (ESCR) making it ideal for use in a wide range of blow molding applications.

Applications:

Containers, small bottles, blow molding of containers up to 20 L for chemicals, domestic and oils.

Process

Blow molding and extrusion.

Control properties:

	Test Methods	Units	Values
Melt flow rate (190 °C/2.16 kg)	D1238	g/10 min	0.4
Density	D792	g/cm ³	0.955

Typical properties¹:

	Test Methods	Units	Values
Tensile strength at yield	D638	MPa	27
Elongation at break	D638	%	>400
Tensile modulus of elasticity (secant 1% method)	D638	MPa	1240
Flexural modulus (secant 1% method)	D790	MPa	1320
Izod impact strength	D256	J/m	140
ESCR ² (Igepal 10%)	D1693	h	24
ESCR ² (Igepal 100%)	D1693	h	118

¹Test specimens from compression molded plaque according to ASTM D4703.

²B Condition.

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RPL 5A1 NL

RPL 5A1 NL is a Low Density Polyethylene resin containing 50% Post-Consumer recycled (PCR) LDPE. Its properties are comparable to virgin LDPE resins.

Applications:

Shrink film.

Process:

Blown film extrusion.

Control Properties:

	Test Methods	Units	Values
Melt Flow Rate (190°/2.16 kg)	D1238	g/10 min	0.6
Density	D792	g/cm ³	0.921

Typical Properties¹:

	Test Methods	Units	Values
Tensile Strength at Break MD	D882	MPa	15
Tensile Strength at Break TD	D882	MPa	17
Elongation Strength at Break MD	D882	%	200
Elongation Strength at Break TD	D882	%	591
Tensile modulus MD, secant 1%	D882	MPa	151
Tensile modulus TD, secant 1%	D882	MPa	177
Elmendorf Tear Strength, TD	D1922	gF	550
Dart drop impact	D1709	gF	93
Contraction, MD	–	%	82
Contraction, DT	–	%	18
Haze	–	%	22

¹ Film properties tested with a monolayer 50 µm thickness blown film, blow up ratio: 2.5, die gap: 1.8 mm. MD= Machine direction, TD= Transversal direction. The optimum processing conditions will vary according to the type of equipment used and cannot be considered as performance guarantee.



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RPL 5C1 NL

RPL 5C1 NL is a Low Density Polyethylene resin containing 50% Post-Consumer Recycled (PCR) LDPE. Its properties are comparable to virgin LDPE resins and has outstanding optical properties like brightness and transparency.

Applications:

Flexible packaging, bags and sacks.

Process:

Blown film extrusion.

Control Properties:

	Test Methods	Units	Values
Melt Flow Rate (190°/2.16 kg)	D1238	g/10 min	1.85
Density	D792	g/cm ³	0.921

Typical Properties¹:

	Test Methods	Units	Values
Tensile Strength at Break MD	D882	MPa	17
Tensile Strength at Break TD	D882	MPa	15
Elongation Strength at Break MD	D882	%	408
Elongation Strength at Break TD	D882	%	659
Tensile modulus MD, secant 1%	D882	MPa	153
Tensile modulus TD, secant 1%	D882	MPa	163
Elmendorf Tear Strength, TD	D1922	gF	848
Dart drop impact	D1709	gF	98
Haze	–	%	7.6

¹ Film properties tested with a monolayer 50 µm thickness blown film, blow up ratio: 2.5, die gap: 1.8 mm. MD= Machine direction, TD= Transversal direction. The optimum processing conditions will vary according to the type of equipment used and cannot be considered as performance guarantee.



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RHB006

RHB006 resin is a high-density polyethylene with 70% post-consumer recycled (PCR).

Process:

Extrusion blow.

Control Properties:

	Test Methods	Units	Values
Melt Flow Rate (190°/2.16 kg)	D1238	g/10 min	0.18
Density	D792	g/cm ³	0.955

Typical Properties¹:

	Test Methods	Units	Values
Tensile strength at yield	D638	MPa	27
Elongation at break	D638	MPa	20
Strain at yield point	D638	%	6
Strain at break point	D638	%	355
Flexural modulus (secant 1%)	D638	MPa	1295

¹Mechanical properties were measured from prepared specimens according to ASTM D 4703 Method C.



Final Observations:

1. The specifications shown in this document correspond to average values, they were obtained through laboratory tests.
2. Optimal processing conditions will vary according to the type of equipment used and cannot be considered as a guarantee of performance.
3. For a correct operation of this material, the use of dehumidifiers is recommended.

RLF005

RLF005 resin is a 100% Post-Consumer Recycled (PCR) low-density polyethylene.

Process:

Blown film extrusion.

Control Properties:

	Test Methods	Units	Values
Melt Flow Rate (190°/2.16 kg)	D1238	g/10 min	1.25
Density	D792	g/cm ³	0.927

Typical Properties:

	Test Methods	Units	Values
Effort at break point, DM ²	D882	MPa	16
Effort at break point, DT ²	D882	MPa	14
Strain at break point, DM ²	D882	%	170
Strain at break point, DT ²	D882	%	598
Tensile modulus (secant 1%), DM ²	D882	MPa	158
Tensile modulus (secant 1%), DT ²	D882	MPa	186
Elmendorf trait, DT ²	D1922	gF	573
Dart drop impact resistance	D1709	gF50	76
Opacity	D1003	%	18.2

¹Mechanical properties made on blown film at 50 µm thickness with the following processing conditions: blow ratio of 2.5, die opening 1.8 mm.

²MD= Machine Direction, TD= Transversal Direction.

Final Observations:

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RPH 0E1 NL

RPH 0E1 NL is a polypropylene resin containing 100% recycled material. This resin is obtained through extrusion of hot-washed flake with double filtration.

Process:

Extrusion.

Control Properties:

	Test Methods	Units	Values
Melt index (190°C/2.16Kg)	D1238	g/10 min	0.9
Melt index (190°C/5 Kg)	D1238	g/10 min	2.5

Typical Properties:

	Test Methods	Units	Values
Tensile strenght	D638	MPa	28
Elongation	D638	%	>40
Ash percent	D5630	%	0.005

Final Observations:

1. The information in this document reflects typical values obtained in laboratory.
2. Mechanical properties were measured from specimens regarding to ASTM D 4703.
3. For the correct operation of this material, the use of dehumidifiers is recommended.



RPR 0A2 WE

RPR 0A2 WE resin is 100% post-consumer recycled (PCR) polyethylene. This product can contain up to 1% polyethylene pellets of different colors.

Process:

Extrusion.

Control Properties:

	Test Methods	Units	Values
Melt index (190 °C/2.16 kg)	D1238	g/10 min	0.44
Density	D792	g/cm ³	0.963

Typical Properties¹:

	Test Methods	Units	Values
Tensile Strength at Yield	D638	MPa	25
Tensile Strength at Break	D638	MPa	15
Strain at Yield	D638	%	7
Strain at Break	D638	%	350
Elasticity Modulus (Secant 1%)	D638	MPa	1135
Flexural Modulus (Secant 1%)	D790	MPa	1194
Izod Impact Strength ³	D256	J/m	58
ESCR (100% Igepal) ²	D1693	h	10
FNCT	ISO 16770	min	36

¹ Test specimens from compression molded plaque according to ASTM D4703.

² Condition B.

³ Test temperature at 23 °C



Final Observations:

1. The specifications showed in this document correspond to average values; they were obtained through laboratory tests.
2. Optimal processing conditions will vary according to the type of equipment used and cannot be considered as a guarantee of performance.
3. For the correct operation of this material, the use of humidifiers is recommended.

RPR 0A2 GY

RPR 0A2 GY is a high-density polyethylene copolymer resin containing 100% Post-Consumer Recycled (PCR) HDPE. This resin is obtained by extrusion of hot-washed multi-color flake, which results in a material of excellent quality and performance.

Process:

Extrusion.

Control Properties:

	Test Methods	Units	Values
Melt index (190 °C/2.16 kg)	D1238	g/10 min	0.47
Density	D792	g/cm ³	0.959

Typical Properties¹:

	Test Methods	Units	Values
Tensile Strength at Yield	D638	MPa	24
Tensile Strength at Break	D638	MPa	14
Strain at Yield	D638	%	7
Strain at Break	D638	%	124
Elasticity Modulus (Secant 1%)	D638	MPa	1175
Flexural Modulus (Secant 1%)	D790	MPa	1220
Izod Impact Strength ³	D256	J/m	56
ESCR (100% Igepal) ²	D1693	h	13

¹ Test specimens from compression molded plaque according to ASTM D4703.

² Condition B.

³ Test temperature at 23 °C



Final Observations:

1. The specifications showed in this document correspond to average values; they were obtained through laboratory tests.
2. Optimal processing conditions will vary according to the type of equipment used and cannot be considered as a guarantee of performance.
3. For the correct operation of this material, the use of humidifiers is recommended.

DISCLAIMER

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CAS Number: 9002-88-4

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