# Vanden®

# Recycled Resins & Flakes Catalogue

Technical Data Sheets: > LDPE > LLDPE > HDPE > PET > PET FLAKES > PP





Why Vanden is the supplier to work with 03

#### **Technical Data Sheets**

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## Delivering certainty in the uncertain world of recycled plastics



Since 2005, Vanden has collected and supplied scrap plastic for recycling, producing over 600kT of recycled feedstock to converters in over 30 countries, across three continents. Our responsible, transparent practices and processes have been developed specifically for the scrap and recycled resins market.

Our global footprint means we can minimise the impact of market disruptions, providing a stable, reliable and diverse supply of recycled content for packaging and other plastic manufacturers.

#### Why should you partner with Vanden?

Manufacturers and converters are faced with two challenges – securing consistently high-quality recycled content and ensuring it is supplied on a regular basis.

#### Securing volume with source diversification



Limited volume of plastic scrap feedstock is a problem frequently faced by suppliers. Our strength lies in Vanden's global footprint, our locations in Asia, Australia, Finland, Ireland, Italy, Netherlands, Spain, Turkey, UK and UAE provides access to multiple markets. This means we are able to source specific grades of material according to customer needs, across diversified regions.

# Securing quality with material verification and testing



The team's technical understanding of plastics means that Vanden can control and optimise the quality of the material that we supply. We collect samples according to the Vanden standards to ensure lab tests reflect the real quality you will receive.

Our dedicated Testing Lab carries out a range of quality verification tests, as well as TDS validation and ongoing technical assessments to ensure you always get the right product.

#### **Technical consultancy**



Our recycled resin division offers consultancy and technical advisory in recycled resins, flakes and scrap plastics feedstock. By engaging with recyclers, compounders and converters in process improvement, sourcing strategy or investment planning we aid them in producing recycled feedstocks that meet end customers` technical demands.



# **Recycled Granules - Natural**

Name of the material	LDPE-11-Natural
Source material	Post Consumer Films
Granule size	2 -5mm
Volume available	200 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 0.9	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.91 - 0.94	g/cm³	ISO 1133
Tensile Strength	12	MPa	ISO 527
Elongation at break	320	%	ISO 527
Flexural Strength	6	MPa	ISO 178
Flexural Modulus	135	MPa	ISO 178
Impact Strength	47	Kj/m²	ISO 180

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

Reported test result values are average data that have been obtained after several tests in production. Specific value of the lots can be only issued through certificates of Analysis under request.

Material quality as per samples provided.

#### Disclaimer

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# **Recycled Granules – Natural**

Name of the material	LDPE-34-Natural
Source material	Post Industrial Films
Granule size	2 -5mm
Volume available	50 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.8 - 1.5	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2.8 - 4.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.92 - 0.94	g/cm³	ISO 1183
Tensile Strength	12 -16	MPa	ISO 527
Elongation at Break	550 - 700	%	ISO 527
Flexural Strength	3 - 4	MPa	ISO 178
Flexural Modulus	100 - 115	MPa	ISO 178
Izod Impact Strength	40 -45	KJ/m <sup>2</sup>	ISO 180/1A

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

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# **Recycled Granules – Natural**

Name of the material	LDPE-1032-Natural
Source material	Post Industrial Films
Granule size	2 – 6mm
Volume available	50 MT per month
Packing	25kg bags / Big bags
Mesh size during production	N° 80

Properties	Values	U.M	Test Method
Melt Flow Rate	0.3 - 0.9	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	1.5 - 2.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.94	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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Material quality as per samples provided.





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# Recycled Granules – Semi Transparent

Name of the material	LDPE-32-Semi Transparent
Source material	Post Consumer Films
Granule size	2 -5mm
Volume available	50 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.6 - 1.4	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.91 - 0.94	g/cm³	ISO 1183
Tensile Strength	14	MPa	ISO 527
Elongation at break	415	%	ISO 527
Flexural Strength	5.5	MPa	ISO 178
Flexural Modulus	96	MPa	ISO 178
Impact Strength	45	Kj/m²	ISO 180

Processing Parameters	Values	U>M
Processing temperature	180 - 210	°C

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# **Recycled Granules – Semi Transparent**

Name of the material	LDPE-34-Semi Transparent
Source material	Post Consumer & Post Industrial Films
Granule size	2 -6mm
Volume available	100 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.8 - 1.5	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2.8 - 4.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.92 - 0.94	g/cm³	ISO 1183
Tensile Strength	12 -16	MPa	ISO 527
Elongation at Break	625 - 750	%	ISO 527
Flexural Strength	3.5 - 4.5	MPa	ISO 178
Flexural Modulus	115 - 145	MPa	ISO 178
Izod Impact Strength	44 -48	KJ/m <sup>2</sup>	ISO 180/1A

Processing Parameters	Values	U>M
Processing temperature	180 - 210	°C

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# **Recycled Granules – Semi Transparent**

Name of the material	LDPE-590-Semi Transparent
Source material	Post Consumer Films
Granule size	4 – 5mm
Volume available	200 MT per month
Packing	Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.7 - 1.3	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.918 – 0.93	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

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# **Recycled Granules – Semi Transparent**

Name of the material	LDPE-992-Semi Transparent
Source material	Post Consumer Films
Granule size	2 -5mm
Volume available	300 MT per month
Packing	Big bags
Mesh size during production	Nº 140

Properties	Values	U.M	Test Method
Melt Flow Rate	1- 1.4	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	4 - 4.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.90 - 0.92	g/cm³	ISO 1183
Tensile Strength	13.7	MPa	ISO 527
Elongation at Break	294	%	ISO 527
Izod Impact Strength - unnotched	52	KJ/m <sup>2</sup>	ISO 180
Izod Impact Strength - notched	51	KJ/m <sup>2</sup>	ISO 180

Processing Parameters	Values	U.M
Melt temperature	180 - 210	°C





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# **Recycled Granules - Semi Transparent**

Name of the material	LDPE-993-Semi Transparent
Source material	Post Consumer Films
Granule size	2 –5mm
Volume available	300 MT per month
Packing	Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 0.9	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	1.8 – 3	g/10min	ISO 1133 (190°C/5kg)
Density	0.90 - 0.94	g/cm³	ISO 1133
Tensile Strength	13.4	MPa	ISO 527
Elongation at Break	190	%	ISO 527
Izod Impact Strength - unnotched	52	Kj/m²	ISO 180
Izod Impact Strength - notched	50	Kj/m²	ISO 180

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C





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# **Recycled Granules – Honey Colour**

Name of the material	LDPE-1406-Honey Colour
Source material	Post Consumer Films
Granule size	2 – 6mm
Volume available	100 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 1.5	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2 - 3.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.94	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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# **Recycled Granules – Honey Colour**

Name of the material	LDPE-570-Honey Colour
Source material	Post Consumer Films
Granule size	1 – 5mm
Volume available	500 MT per month
Packing	Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.8 - 1.6	g/10min	LST EN ISO 1133-1:2012 Procedure A/B
Moisture (volatile content), m <sub>v</sub>	0.01	%	LST EN 12099:2002
Ash Content	0.30	%	LST EN ISO 3451-1:2019 Method A

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C





### Additional notes:

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# **Recycled Granules – White**

Name of the material	LDPE-2136-White
Source material	Post Agricultural Film
Granule size	2 -5mm
Volume available	20 MT per month
Packing	Big bags
Mesh size during production	N° 65

Properties	Values	U.M	Test Method
Melt Flow Rate	0.2 - 0.3	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.94 - 0.92	g/cm³	ISO 1183
Tensile Strength	11-15	MPa	ISO 527
Tensile modulus	195 -240	%	ISO 527
Elongation at Break	310 -450	%	ISO 527
Flexural modulus	250	MPa	ISO 178
Izod impact test notched 23°C	54	KJ/m <sup>2</sup>	ISO 180
Ash Content	4 - 5	%	

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

### **Additional notes:**

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# **Recycled Granules – Grey**

Name of the material	LDPE-2401-Grey
Source material	Post Consumer Films
Granule size	2 – 6mm
Volume available	100 MT per month
Packing	Big bags / Bulk
Mesh size during production	N° 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.7 – 1.3	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.96	g/cm³	ISO 1183
Elongation at Break	10 - 12	MPa	ISO 527
Tensile Modulus	300 - 400	MPa	ISO 527
Tensile Strain	>500	%	ISO 527
Charpy Impact Strength	>100	KJ/m <sup>2</sup>	ISO 179/1

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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Material quality as per samples provided.

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# **Recycled Granules - Grey**

Name of the material	LDPE-558-Grey
Source material	Post Consumer Films
Granule size	1 – 5mm
Volume available	500 MT per month
Packing	Big bags
Mesh size during production	Nº 140

Properties	Values	U.M	Test Method
Melt Flow Rate	1.2	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.947	g/cm³	ISO 1183
Tensile Strength	25	MPa	ISO 1183
Elongation at break	500	%	ISO 527

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

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Material quality as per samples provided.





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# **Recycled Granules – Dark Grey**

Name of the material	LDPE-1427-Dark Grey
Source material	Post Consumer Films
Granule size	2 -6mm
Volume available	200 MT per month
Packing	Big bags
Mesh size during production	N° 130

Properties	Values	U.M	Test Method
Melt Flow Rate	0.45 - 0.8	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	1.8 - 2.6	g/10min	ISO 1133 (190°C/5kg)
Density	0.93 - 0.96	g/cm³	ISO 1183
Elongation at Break	18	MPa	ISO 527
Tensile Strength at Break (MD)	210	%	ISO 527
Purity of PE	>96	%	ISO 11357 (DSC)
Ash Content (800°C)	<5	%	TGA analysis

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

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Material quality as per samples provided.





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# **Recycled Granules – Blue**

Name of the material	LDPE-1427-Blue
Source material	Post Consumer Films
Granule size	2 -6mm
Volume available	150 MT per month
Packing	Big bags
Mesh size during production	Nº 130

Properties	Values	U.M	Test Method
Melt Flow Rate	0.45 - 0.8	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	1.8 - 2.6	g/10min	ISO 1133 (190°C/5kg)
Density	0.93 - 0.96	g/cm³	ISO 1183
Tensile Strength	21	MPa	ISO 527
Elongation at Break	210	%	ISO 527
Purity of PE	>98	%	ISO 11357 (DSC)
Ash Content (800°C)	<5	%	TGA analysis

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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Material quality as per samples provided.





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# **Recycled Granules – Black**

Name of the material	LDPE-590-Black
Source material	Post Consumer Films
Granule size	4 – 5mm
Volume available	200 MT per month
Packing	Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 0.9	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.918 – 0.93	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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# **Recycled Granules – Black**

Name of the material	LDPE-1401-Black
Source material	Post Consumer Films
Granule size	2 – 6mm
Volume available	100 MT per month
Packing	25kg bags / Big bags
Mesh size during production	N° 85

Properties	Values	U.M	Test Method
Melt Flow Rate	0.4 - 1.2	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2 - 3.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.94	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

Additional notes:

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Material quality as per samples provided.





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# **Recycled Granules – Black**

Name of the material	LDPE-1416-Black
Source material	Post Consumer Films
Granule size	2 – 6mm
Volume available	500 MT per month
Packing	25kg bags / Big bags
Mesh size during production	N° 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 1.5	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2 - 3.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.94	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 -210	°C

#### **Additional notes:**

Additional notes:

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# **Recycled Granules – Black**

Name of the material	LDPE-1421-Black
Source material	Post Consumer Films
Granule size	2 – 6mm
Volume available	100 MT per month
Packing	25kg bags / Big bags
Mesh size during production	N° 85

Properties	Values	U.M	Test Method
Melt Flow Rate	0.5 - 1.5	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	2 - 3.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.94	g/cm³	ISO 1183

Processing Parameters	Values	U.M
Processing temperature	180 - 210	°C

#### **Additional notes:**

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# Recycled Granules – Natural

Name of the material	LLDPE-11-Natural
Source material	Post Consumer Films
Granule size	1 – 5mm
Volume available	200 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	3.0 - 4.0	g/10min	ISO 1133 (190°C/2.16kg)
Melt Flow Rate	7.5 - 9.5	g/10min	ISO 1133 (190°C/5kg)
Density	0.91 - 0.93	g/cm³	ISO 1183
Tensile Strength	22	MPa	ASTM D-638
Tensile Modulus	1200	%	ASTM D-638

Processing Parameters	Values	U.M
Processing temperature	190 - 220	°C

#### **Additional notes:**

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# Recycled Granules – Semi Transparent

Name of the material	LLDPE-32-Semi Transparent
Source material	Post Industrial Films
Granule size	2 -5mm
Volume available	50 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	1.6 - 4	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.91 - 0.93	g/cm³	ISO 1183
Tensile Strength	13	MPa	ISO 527
Elongation at break	500	%	ISO 527
Flexural strength	5	MPa	ISO 178
Flexural modulus	60	MPa	ISO 178
Impact Strength	43	KJ/m <sup>2</sup>	ISO 180

Processing Parameters	Values	U.M
Processing temperature	190 - 220	°C

#### **Additional notes:**

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Material quality as per samples provided.

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# Recycled Granules – Semi Transparent

Name of the material	LLDPE-33-Semi Transparent
Source material	Post Industrial Films
Granule size	2 -5mm
Volume available	60 MT per month
Packing	25kg bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	1.3 - 2.5	g/10min	ISO 1133 (190°C/2.16kg)
Density	0.91 - 0.93	g/cm³	ISO 1183
Tensile Strength	13	MPa	ISO 527
Elongation at break	710	%	ISO 527
Flexural strength	4	MPa	ISO 178
Flexural modulus	120	MPa	ISO 178
Impact strength	44	KJ/m <sup>2</sup>	ISO 180/1A

Processing Parameters	Values	U.M
Processing temperature	190 - 220	°C

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# **Recycled Granules – Honey Colour**

Name of the material	LLDPE-570-Honey Colour
Source material	Post Consumer Films
Granule size	1 – 5mm
Volume available	40 MT per month
Packing	Big bags
Mesh size during production	N° 120

Properties	Values	U.M	Test Method
Melt Flow Rate	1 - 4	g/10min	LST EN ISO 1133-1:2012 Procedure A/B
Bulk Density	518	kg/m³	LST EN 15344:2008 Annex B
Moisture (volatile content), m <sub>v</sub>	0.02	%	LST EN 12099:2002
Ash Content	0.30	%	LST EN ISO 3451-1:2019 Method A

Processing Parameters	Values	U.M
Processing temperature	190 - 220	°C

### **Additional notes:**

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HDPE



# **Recycled Granules - Natural**

Name of the material	HDPE-1404-Natural
Source material	Post Consumer Bottles
Granule size	1 – 5mm
Volume available	60 MT per month
Packing	Big bags
Mesh size during production	N° 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.4 -0.6	g/10min	ISO 1133 (190°C/2.16 kg)
Melt Flow Rate	2.0 - 2.6	g/10min	ISO 1133 (190°C/5 kg)
Density	0.94 -0.96	g/cm³	ISO 1133
Ash content	< 1.5	%	TS EN ISO 3451-1
Moisture	< 0.1	%	TS EN 12099
HDPE content	> 94	%	FT-IR

Processing Parameters	Values	U.M
Processing temperature	190 - 230	°C





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HDPE



# **Recycled Granules - Natural**

Name of the material	HDPE-36-Natural
Source material	Post Consumer Bottles
Granule size	2 -5mm
Volume available	200 MT per month
Packing	25kg bags / Big bags
Mesh size during production	Nº 120

Properties	Values	U.M	Test Method
Melt Flow Rate	0.3 - 0.55	g/10min	ASTM D 1236 (190°C/2.16 kg)
Density	0.94 - 0.96	g/cm³	ASTM D 792
Tensile Strength	310	kg/cm <sup>2</sup>	ASTM D 638
Flexural Strength at Yield	280	kg/cm <sup>2</sup>	ASTM D 790
Flexural Modulus	8500	kg/cm <sup>2</sup>	ASTM D 790
Izod Impact Strength	22	Kg.cm/cm	ASTM D 256

Processing Parameters	Values	U.M
Processing temperature	190 - 230	°C





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HDPE



# **Recycled Granules - Natural**

Name of the material	HDPE-988-Natural
Source material	Post Consumer Bottles
Granule size	2 -4mm
Volume available	500 MT per month
Packing	Big bags
Mesh size during production	Nº 100

Properties	Values	U.M	Test Method
Melt Flow Rate	0.3 - 0.5	g/10min	ISO 1133 (190°C/2.16 kg)
Melt Flow Rate	1.3 - 2.0	g/10min	ISO 1133 (190°C/5 kg)
Density	0.945 - 0.960	g/cm²	ISO 1183
Tenstile Strength	23	MPa	ISO 527
Tenstile Modulus	780	MPa	ISO 527
Flexural Modulus	800	MPa	ISO 178

Processing Parameters	Values	U.M
Processing temperature	190 - 230	°C





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Material quality as per samples provided.

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PET



# **PET Recycled Granules - Natural**

Name of the material	PET-1425-Natural
Source material	Post Consumer Bottles
Flake size	<3.55 mm
Volume available	100 MT per month
Packing	Big bags

Properties	Values	U.M	Test Method
IV – Intrinsic Viscosity	0.68 – 0.72	dl/g	ISO 121628-5
Moisture	< 0.8	%	TS EN 15348 - Annex B

Color Combination	Values	U.M	Test Method
Colour, colour *a *	-3 ± 2		EN ISO 11664-4
Colour, colour *b *	-3 ± 2		EN ISO 11664-4
Colour, colour *L *	65 ± 3		EN ISO 11664-4





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PET



# **PET Recycled Granules - Natural**

Name of the material	PET-1426-Natural
Source material	Post Consumer Bottles
Flake size	<3.5 mm
Volume available	50 MT per month
Packing	Big bags

Properties	Values	U.M	Test Method
IV – Intrinsic Viscosity	0.71 – 0.78	dl/g	DIN 53735
Acetaldehyd	2.0	ppm	ASTM 2013 - 10

Color Combination	Values	U.M	Test Method
Colour, colour *b *	to -3		Inhouse method*
Colour, colour *L *	>64		Inhouse method*





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Name of the material	PET-1404-Natural & Light Blue		
Source material	Post Consumer & Post Industrial Bottles		
Flake size	2–12.5 mm		
Volume available	500 MT per month		
Packing	Big bags		

Properties	Values	U.M	Test Method
IV – Intrinsic Viscosity	0.74 – 0.82	dl/g	ASTM D 4603-18
Bulk density	300±100	g/l	ISO 12418-2
Moisture	<1	%	TS EN 15348

Physical Contamination	Values	U.M	Test Method
Metals	≤10	ppm	ISO 12418-2 TS EN 15348
Plastic labels	≤40	ppm	ISO 12418-2 TS EN 15348
Inerts (Wood, stone, glass)	≤20	ppm	ISO 12418-2 TS EN 15348

After Heat Treatment	Values	U.M	Test Method
PVC	≤30	ppm	ISO 12418-2 TS EN 15348
Adhesives	≤20	ppm	ISO 12418-2 TS EN 15348

#### **Additional notes:**

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Material quality as per samples provided.

#### Disclaimer

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Name of the material	PET-1411-Natural & Light Blue		
Source material	Post Consumer Bottles		
Flake size	2–12.5 mm		
Volume available	500 MT per month		
Packing	Big bags		

Properties	Values	U.M	Test Method
IV – Intrinsic Viscosity	≥0.73	dl/g	ISO 1628-5
Bulk density	≥0.250	g/cm3	Internal

Physical Contamination	Values	U.M	Test Method
Metals	≤60	ppm	Internal (based on UNI 10667-9)
Plastic labels	≤50	ppm	Internal (based on UNI 10667-9)
Inerts (Wood, stone, glass)	≤25	ppm	

After Heat Treatment	Values	U.M	Test Method
Other polymers	≤100	ppm	Internal
PVC	≤50	ppm	Internal (based on UNI 10667-9)
PA	≤0.07	ppm	

#### **Additional notes:**

Reported test result values are average data that have been obtained after several tests in production. Specific value of the lots can be only issued through certificates of Analysis under request.

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Name of the material	PET-1424-Natural & Light Blue		
Source material	Post Consumer Bottles		
Flake size	6-12 mm		
Volume available	200 MT per month		
Packing	Big bags		

Properties	Values	U.M	Test Method
IV – Intrinsic Viscosity	0.65 – 0.75	dl/g	ISO 12418-2
Bulk density	320±40	g/l	ISO 12418-2
Moisture	≤100	%	ISO 12418-2

Physical Contamination	Values	U.M	Test Method
PVC	≤100	ppm	Flake scan device
Impurity	≤100	ppm	Flake scan device



#### **Additional notes:**

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Name of the material	PET-1425-Natural & Light Blue
Source material	Post Consumer Bottles
Flake size	<12.5 mm
Volume available	100 MT per month
Packing	Big bags

Properties	Values	U.M	Test Method	
IV – Intrinsic Viscosity	0.65 – 0.75	dl/g	ISO 121628-5	
Moisture	< 1.2	%	TS EN 15348 - Annex B	

Physical Contamination	Values	U.M	Test Method
Polyolefin content	≤100	ppm	TS EN 15348 - Annex B
Plastic labels	≤40	ppm	TS EN 15348 - Annex B
Inerts (Wood, stone, glass)	≤100	ppm	TS EN 15348 - Annex B

After Heat Treatment	Values	U.M	Test Method
PVC	≤200	ppm	TS EN 15348 - Annex B

#### **Additional notes:**

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# **Recycled Granules – Grey**

Name of the material	PP-1422-Grey-515		
Source material	Post Consumer Buckets		
Granule size	2 -5mm		
Volume available	200 MT per month		
Packing	25kg bags / Big bags		
Mesh size during production	N° 40		

Properties	Values	U.M	Test Method	
Melt Flow Index	15 - 20	g/10min	ISO 1133 (190°C/2.16kg)	
Density	<1	g/cm³	ISO 1183	
Tensile Strength	22 - 24	MPa	ISO 527	
Elongation at Break	100 - 110	%	ISO 527	
Flexural Strength	24 - 27	MPa	ISO 178	
Flexural Modulus	1000 - 1120	MPa	ISO 178	
Izod Impact Strength – unnotched	125	KJ/m <sup>2</sup>	ISO 180-1A	
Izod Impact Strength - notched	8 - 9	KJ/m <sup>2</sup>	ISO 180-1A	

Processing Parameters	Values	U.M
Processing temperature	210 - 250	°C

#### **Additional notes:**

Additional notes:

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# CONTACT

#### **Beril Yesilirmak** Technical Director – Global

Email: b.yesilirmak@vandenrecycling.com Tel: +971 545 460 101



#### **Alex Moreno March** Business Development Manager – Southern Europe

Email: a.march@vandenrecycling.com Tel: +34 661 333 411

#### Ahmet Canbeyli Sales Executive – Recycled Plastics

Email: a.canbeyli@vandenrecycling.com Tel: +90 535 251 17 55

