

**THE CHEMICAL BROTHERS GROUP**

**Specifications: PET Recycled Granules - Natural**

Parameter	Specification	Unit	Test Method
Name of the material	PET-1425-Natural		
Source material	Post Consumer Bottles		
Flake size	< 3.55 mm		
Packing	Big bags		
IV - Intrinsic Viscosity	0.68 – 0.72	dl/g	ISO 121628-5
Moisture	< 0.8	%	TS EN 15348
Colour, colour <i>a</i>	-3 ± 2		EN ISO 11664-4
Colour, colour <i>b</i>	-3 ± 2		EN ISO 11664-4
Colour, colour <i>L</i>	65 ± 3		EN ISO 11664-4

**\*End of Report\*\***

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**Specifications: PET Recycled Granules - Natural**

Parameter	Specification	Unit	Test Method
Name of the material	PET-1426-Natural		
Source material	Post Consumer Bottles		
Flake size	< 3.5 mm		
Volume available	100 MT per month		
Packing	Big bags		
IV - Intrinsic Viscosity	0.71 – 0.78	dl/g	DIN 53735
Acetaldehyde	2.0	ppm	ASTM 2013 - 10
Colour, colour <i>b</i>	to -3		Inhouse method*
Colour, colour <i>L</i>	>64		Inhouse method*

**\*End of Report\*\***

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**Specifications: PET Recycled Granules – Green**

Parameter	Specification	Unit	Test Method
Name of the material	PET 569 Green		
Source material	Post Consumer		
Granule size	2-4 mm		
Packing	Big Bags		
IV - Intrinsic Viscosity	0.55 – 0.65	dl/g	ISO 12418-2:2012
Bulk density	910	kg/m <sup>3</sup>	Internal method
Moisture	<0.2	wt%	Gravimetric method
Physical Contamination	Values	U.M	Test Method
Metals	<20	ppm	Internal method
After Heat Treatment	Values	U.M	Test Method
PVC	≤1000	ppm	Internal method
Colour	Values	U.M	Test Method
L	25 ... 34		
a	-11.0 ... -2.0		
b	-1.0 ... +6.0		

**\*End of Report\*\***

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**Specifications: PET Bottle Flakes – Natural & Light Blue**

Parameter	Specification	Unit	Test Method
Name of the material	PET-1404-Natural & Light Blue		
Source material	Post Consumer & Post Industrial Bottles		
Flake size	2-12.5 mm		
Packing	Big bags		
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, etc.)	≤20	ppm	ISO 12418-2, TS EN 15348

**\*End of Report\*\***

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### Specifications: PET - Bottle Flakes

Parameter	PET-1424-Natural & Light Blue	PET-1425-Natural -Light Blue	PET 3402 Natural	PET 36 Natural
Source material	Post Consumer Bottles	Post Consumer Bottles	Post Consumer Bottles	Post Consumer Bottles
Flake size	6-12 mm	<12.5 mm	8-12 mm	12-16 mm
Packing	Big bags	Big bags	Big bags	Big bags
Certification	GRS, Reach compliance declaration	-	-	-
IV - Intrinsic Viscosity	0.65 – 0.75	0.65 – 0.76	0.70 - 0.80	0.70 - 0.74
Unit	dl/g	dl/g	dl/g	dl/g
Test Method	ISO 12418-2	ISO 121628-5	ISO 121628-5	ISO 12418-2
Bulk density	320±40	-	320+40	-
Unit	g/l	-	70	-
Test Method	ISO 12418-2	-	ISO 12418-2	-
Moisture	≤100	< 1.2	0.3 - 0.9	≤ 1
Unit	%	%	%	%
Test Method	ISO 12418-2	TS EN 15348 - Annex B	ISO 12418-2	EN 15348
Physical Contamination	Values	Values	Values	Values
PVC	≤100	-	≤50	≤50
Unit	ppm	-	ppm	ppm
Test Method	Flake scan device	-	ISO 12418-2	ASTM D3139
Impurity	≤100	≤100	≤100	≤100
Unit	ppm	ppm	ppm	ppm
Test Method	Flake scan device	TS EN 15348 - Annex B	ISO 12418-2	ASTM D1238
Polyolefin content	-	≤100	-	-
Unit	-	ppm	-	-
Test Method	-	TS EN 15348 - Annex B	-	-
Plastic labels	-	≤40	-	-
Unit	-	ppm	-	-
Test Method	-	TS EN 15348 - Annex B	-	-
Inerts (Wood, stone, glass, etc.)	-	≤100	-	-
Unit	-	ppm	-	-
Test Method	-	TS EN 15348 - Annex B	-	-

\*End of Report\*\*