

The background of the entire page is a dense field of small, white, irregular plastic fragments. Scattered throughout these white pieces are numerous tiny, colorful specks and small fragments of other materials in various colors including red, blue, green, purple, black, and gold. The overall effect is a textured, mosaic-like appearance.

SMILE PLASTICS

DATA
SHEET

DATA SHEET

Every Smile Plastics panel is a unique material and is made by hand-selected recycled plastics. Although sorted into specific types it can not be guaranteed that each panel is only made of one type of recycled plastic and could be a mixture of different types of recycled plastics. These different combinations of recycled plastics will greatly affect material properties so the data sheets are only indicative of what our recycled materials may actually perform like.

These data sheets can provide guidelines for how to use Smile Plastics materials but are only indications and may not represent the actual material being used in the products.

No guarantees or warranties can be given or are implied in respect of these guidelines.

↓ Cosmos full sheet, 2000 × 1000mm



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ALBA
CHARCOAL
HERON
KALEIDO
OCEAN
SPECTRA
COSMOS
GREY MIST
ORCA
DAPPLES

ALBA

Made from waste yoghurt pots



Made from the humble kitchen cast-off, your yoghurt pot, Alba is our best-selling material and you can see why. Sophisticated, luxurious and highly versatile in appearance, this interior staple ‘goes with anything’ transcending time and trends.

With its white, marble-like surface and hints of gold and silver (from yoghurt pot foil), Alba isn’t just easy on the eye, it’s easy to use too.

Available in 5mm, 12mm, 20mm thickness.



RHIPS

		Unit
Physical		
Density	g/cm ³	1.06
Mechanical		
Izod Impact Strength (notched)	kJ/m ²	6.8
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2240
Tensile Maximum Load	N	1366
Tensile Strength (yield)	MPa	21.3
Tensile Strength (break)	MPa	17
Elongation at Break	%	5
Shore D Hardness	D	73.9
Thermal		
Heat Deflection Temperature (1.8 Mpa)	°C	86.2
Coefficient of Thermal Expansion	µm/m°C	97.6
Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

Not recommended for outdoor applications as the material may yellow / destabilise with exposure to UV.
**Flammability Rating: where better ratings are required we can make up Custom materials from waste streams that have a higher rating.

DATA SHEET

CHARCOAL

Made from plastic packaging



Charcoal is a classics material with white streaks giving it a “zhuzh” that draws the eye in. We’d say stars at night or gracefully smudged chalk on a blackboard.

What about you? Whatever it says to you, Charcoal is a versatile canvas for your design. Perfect for quietly making a statement, it can also be backlit to bring the details in the pattern out even more.

Charcoal is made from reclaimed medical equipment, combined with “waste” food packaging. Could it be just what the doctor ordered?

Available in 5mm, 12mm, 20mm thickness.

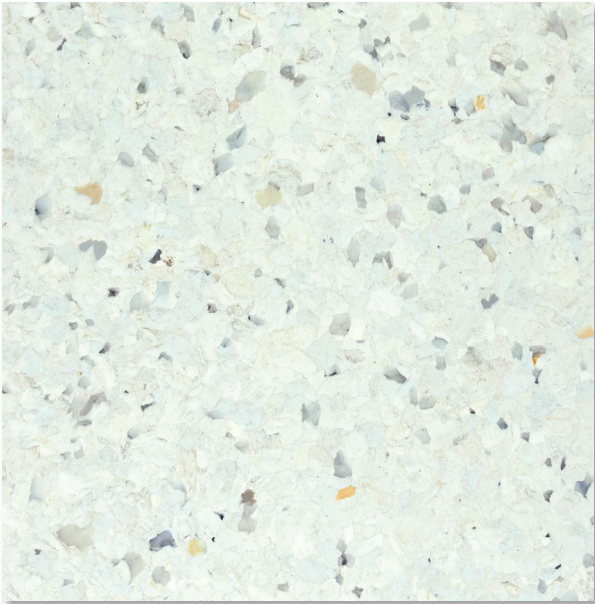
RPET / RPETCOPOLYESTER

		Unit
Physical		
Density	g/cm ³	1.28
Mechanical		
Izod Impact Strength (notched)	kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2106
Tensile Maximum Load	N	2721
Tensile Strength (yield)	MPa	45.2
Tensile Strength (break)	MPa	45.2
Elongation at Break	%	8
Shore D Hardness	D	73.3
Thermal		
Heat Deflection Temperature (1.8 Mpa)	°C	72.6
Coefficient of Thermal Expansion	µm/m°C	82.7
Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

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HERON

Made from white goods



With layered feathery soft grey tones, a smattering of yellow hues, warm ochre flecks, black and blizzard white, it’s hard to imagine that Heron came from humble beginnings. But, in fact, it was created from the staple kitchen fixtures we use every day.

Would-be discarded white goods make up the foundations of the Heron mix, bringing a unique aesthetic and colour palette that is less reminiscent of its original material make-up and more alike the appearance of the statuesque bird after which it was named.

Available in 5mm, 12mm and 20mm thickness.

RHIPS

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Physical		
Density	g/cm ³	1.06
Mechanical		
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Tensile Maximum Load	N	1366
Tensile Strength (yield)	MPa	21.3
Tensile Strength (break)	MPa	17
Elongation at Break	%	5
Shore D Hardness	D	73.9
Thermal		
Heat Deflection Temperature (1.8 Mpa)	°C	86.2
Coefficient of Thermal Expansion	µm/m°C	97.6
Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass
Not recommended for outdoor applications as the material may yellow / destabilise with exposure to UV.		
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KALEIDO

Made from recycled plastic bottles



Kaleido is every maximalist's dream. Brash, extrovert, heady and a bit of a diva that's out to seize the spotlight. Kaleido is also made from recycled cosmetic bottles, so you might say that goes with the territory.

But it's definitely not just about the aesthetic. Take a moment to look at the material up close and see its sustaina-beauty. You'll see traces of bar codes and labels at the surface, so there's lots of Aha! moments for eagle-eyed visitors.

Available in 5mm, 12mm, 20mm thickness.

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Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

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OCEAN

Made from plastic packaging



It's easy to feel a bit blue about plastic in the oceans. Our Ocean material gets into the heart of the matter, by keeping plastic in our economic system we are doing a small bit to preserve marine beauty. Like all our panels, Ocean should stay beautiful for future generations to come.

Available in 5mm, 12mm, 20mm thickness.

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Flammability Rating **			UL94HB
Bacterial			
Fungi Resistance		Fungal Growth %	0
Food Contact		Pass/Fail	Pass

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SPECTRA

Made from plastic packaging



As its name suggests, Spectra is an illuminating product – in every sense of the word. Created from PET packaging waste with elements of Kaleido, colourful, energetic fragments of Spectra's previous life running through its core.

The pairing of these flecks with an otherwise translucent aesthetic offers a moment of clarity. Spectra provides a nod to our current reliance on plastic PPE, while serving as a reminder of the polluted waterways that flow directly into our oceans. While its creation may be rooted in a rather uncertain present, this beautiful material undoubtedly lights the way to a brighter future.

Available in 5mm, 12mm and 20mm thickness.

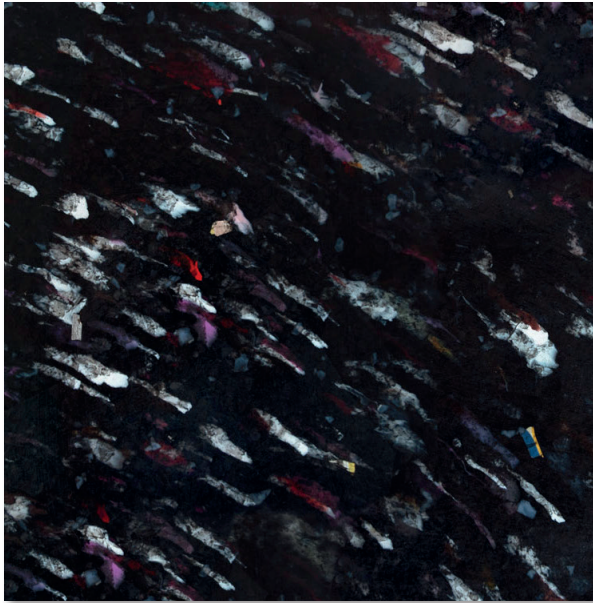
RPET / RPETCOPOLYESTER

Physical		Unit
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Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

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COSMOS

Made from plastic packaging



An intergalactic combination of expansive monochrome and explosive bursts of brilliant colour, Cosmos is an otherworldly delight. Though its appearance may be ethereal, its material make-up was sourced here on Earth, comprising a pigmented PET plastic packaging base, and a hint of Kaleido.

The dynamic visual pace of Cosmos makes it appear to have been painted, with its splatters and splashes of bold colour reflective of the vigorous process in which it was created. When it comes to transforming waste into wonder, Cosmos proves the sky doesn't have to be the limit.

Available in 5mm, 12mm and 20mm thickness.

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RPET / RPETCOPOLYESTER

Physical		Unit
Density	g/cm ³	1.28
Mechanical		
Izod Impact Strength (notched)	kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2106
Tensile Maximum Load	N	2721
Tensile Strength (yield)	MPa	45.2
Tensile Strength (break)	MPa	45.2
Elongation at Break	%	8
Shore D Hardness	D	73.3
Thermal		
Heat Deflection Temperature (1.8 Mpa)	°C	72.6
Coefficient of Thermal Expansion	µm/m°C	82.7
Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

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GREY MIST

Made from plastic packaging



Come walk with us, amidst the rolling mist and the hushed hills...

Sorry for waxing a bit lyrical there, but it’s only because the (drama queen) Grey Mist was inspired by walks in the Welsh hills close to where Smile Plastics are headquartered. It’s a beautiful area, full of natural poetry.

So, put your cynicism to one side and let your imagination wander. Don your wellies, pack your woollies and thermos, and use Grey Mist to create your own landscape.

Available in 5mm, 12mm, 20mm thickness.



RPET / RPETCOPOLYESTER

		Unit	
Physical			
Density		g/cm ³	1.28
Mechanical			
Izod Impact Strength (notched)		kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)		MPa	2106
Tensile Maximum Load		N	2721
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Shore D Hardness		D	73.3
Thermal			
Heat Deflection Temperature (1.8 Mpa)		°C	72.6
Coefficient of Thermal Expansion		µm/m°C	82.7
Flammability Rating **			UL94HB
Bacterial			
Fungi Resistance		Fungal Growth %	0
Food Contact		Pass/Fail	Pass

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ORCA

Made from chopping boards
and plastic packaging



A reimagined version of our highly popular Black Dapple.

Whilst it shares the elegant, marble-like quality of the Dapples, we think Orca has a unique character and a striking style of its own.

Using a classic monochrome palette, the intensely dark base colour contrasts with patches of white, bringing depth and drama to the material. The result is a visually playful and bold aesthetic, very much inspired by one of our favourite sea creatures. Perhaps monochrome isn't so black and white after all?

Available in 12mm and 20mm thickness.

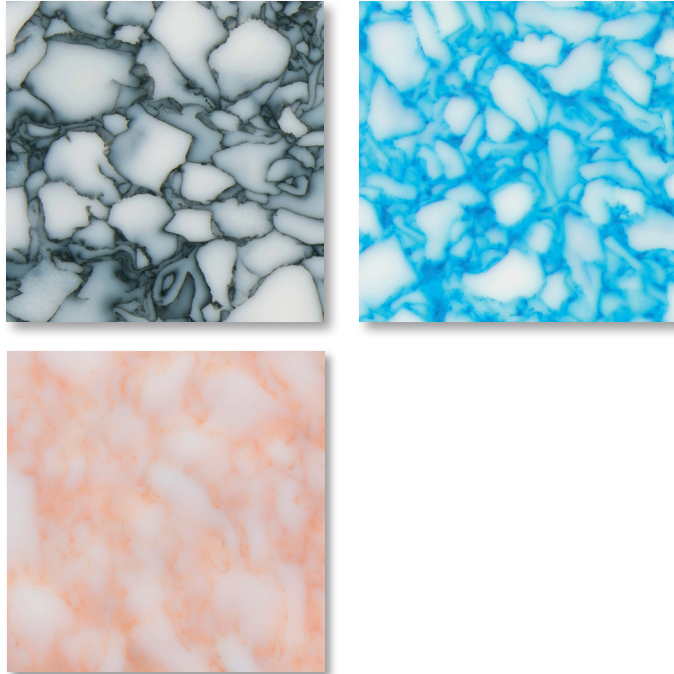
RHDPE (PE300)

	Unit	
Physical		
Density	g/cm ³	0.95
Mechanical		
Izod Impact Strength (notched)	kJ/m ²	11.01
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	802
Tensile Maximum Load	N	1206
Tensile Strength (yield)	MPa	22.2
Tensile Strength (break)	MPa	12.9
Elongation at Break	%	128
Shore D Hardness	D	61.1
Thermal		
Heat Deflection Temperature (1.8 Mpa)	°C	46.1
Coefficient of Thermal Expansion	µm/m°C	158.4
Flammability Rating **		UL94HB
Bacterial		
Fungi Resistance	Fungal Growth %	0
Food Contact	Pass/Fail	Pass

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DAPPLE

Made from chopping boards
and plastic packaging



We think this beauty looks like a cross-section of marble. The intense black colour of its base contrasts with the weave of white veins. Playful yet sophisticated, Dapple's high contrast pattern gives it a lively personality that evokes the material's millions of years of biological, geological and manmade processes.

Served in Black, Blue or Limited Edition Coral - the choice is yours.

Available in 12mm and 20mm thickness.

RHDPE (PE300)

	Unit	
Physical		
Density	g/cm ³	0.95
Mechanical		
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MATERIALS REIMAGINED



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Certificate Number 19268
ISO 9001, ISO 14001