

SMILE MATERIALS

SMILE PLASTICS DATA SHEETS



DATA SHEETS

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. 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.

↓ Heron in Marine Blue full sheet, 2000 × 1000mm



P4

P5

P6

P7

P8

P9

MAXIMALIST PET

MAXIMALIST HIPPS

EARTH PET

EARTH PET CONTINUED

MONOCHROME PET

METALLICS PET

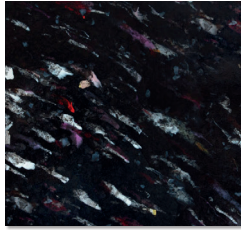
EARTH HIPPS

MARBLE HDPE

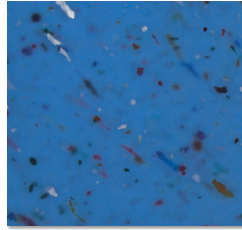
MAXIMALIST



KALEIDO
100% recycled/recyclable
PET | CORE



COSMOS
100% recycled/recyclable
PET | CORE



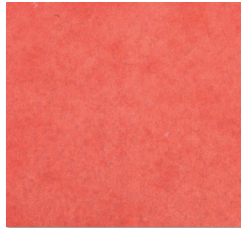
OCEAN
100% recycled/recyclable
PET | CORE



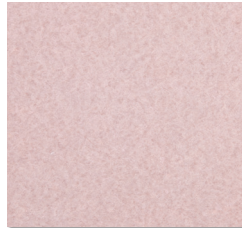
SPECTRA
100% recycled/recyclable
PET | CORE



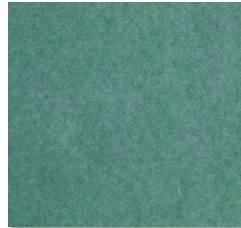
LAVENDER
100% recycled/recyclable
PET | MTO



CRIMSON
100% recycled/recyclable
PET | MTO



HIMALAYAN SALT
100% recycled/recyclable
PET | MTO



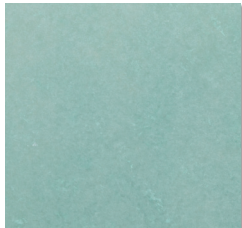
JADE
100% recycled/recyclable
PET | MTO



CORAL
100% recycled/recyclable
PET | MTO



SUNRISE*
100% recycled/recyclable
PET | MTO



SEAGLASS*
100% recycled/recyclable
PET | MTO



SUNFLOWER
100% recycled/recyclable
PET | MTO



AQUA
100% recycled/recyclable
PET | MTO



BERRY
100% recycled/recyclable
PET | MTO



PLUM
100% recycled/recyclable
PET | MTO

RPET / RPETCOPOLYESTER

Physical and Standard	Unit	
Density - UCAS ISO 1183-1	g/cm ³	1.28

Mechanical		
Izod Impact Strength - UCAS ISO 180-1	kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2106
Tensile Maximum Load - UCAS ISO 527	N	2721
Tensile Strength (yield) - UCAS ISO 527	MPa	45.2
Tensile Strength (break) - UCAS ISO 527	MPa	45.2
Elongation at Break	%	8
Shore D Hardness - UCAS ISO 868	D	73.3

Thermal		
Heat Deflection Temperature (1.8 Mpa) - UCAS ISO 75	°C	72.6
Thermal Expansion - UCAS ISO 11359	µm/m°C	82.7
Flammability Rating **		BSEN13238:2010 - Class C, s1-d0

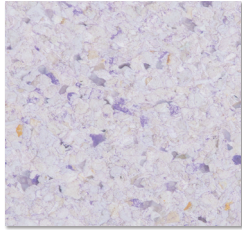
Bacterial	Fungal	
Fungi Resistance - ASTM G21-15	Growth %	0
Food Contact - EN 1186	Pass/Fail	Pass

**A 12mm calcium silicate board substrate was applied as defined in BSEN13238:2010

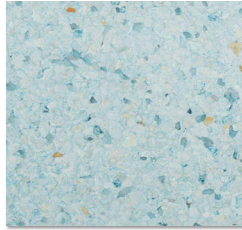


DATA SHEETS

MAXIMALIST



HERON IN
MARINE LILAC
100% recycled/recyclable
HIPS | MTO



HERON IN
MARINE BLUE
100% recycled/recyclable
HIPS | CORE



HERON IN
CORNFLOWER
100% recycled/recyclable
HIPS | MTO



HERON IN
DAFFODIL
100% recycled/recyclable
HIPS | MTO



HERON IN
SPEARMINT
100% recycled/recyclable
HIPS | MTO



HERON IN
ANTIQUEROSE
100% recycled/recyclable
HIPS | MTO

RHIPS

Physical and Standard	Unit	
Density - UCAS ISO 1183-1	g/cm ³	1.06
Mechanical		
Izod Impact Strength - UCAS ISO 180-1	kJ/m ²	6.8
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2240
Tensile Maximum Load - UCAS ISO 527	N	1366
Tensile Strength (yield) - UCAS ISO 527	MPa	21.3
Tensile Strength (break) - UCAS ISO 527	MPa	17
Elongation at Break	%	5
Shore D Hardness - UCAS ISO 868	D	73.9
Thermal		
Heat Deflection Temperature (1.8 Mpa) - UCAS ISO 75	°C	86.2
Thermal Expansion - UCAS ISO 11359	µm/m°C	97.6
Flammability Rating **		BSEN135011:2018 - Class E
Bacterial		
Fungi Resistance - ASTM G21-15	Fungal Growth %	0
Food Contact - EN 1186	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.

EARTH



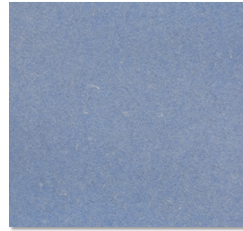
LIMESTONE
100% recycled/recyclable
PET | CORE



LUCENT
100% recycled/recyclable
PET | MTO



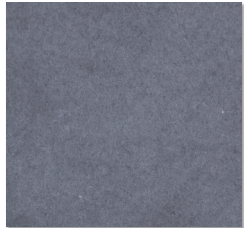
ABER
100% recycled/recyclable
PET | CORE



MARLAIS
100% recycled/recyclable
PET | CORE



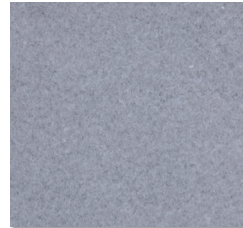
PEBBLE
100% recycled/recyclable
PET | MTO



LEAD
100% recycled/recyclable
PET | MTO



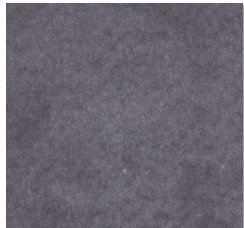
GREY MIST
100% recycled/recyclable
PET | CORE



PEWTER
100% recycled/recyclable
PET | MTO



THISTLE
100% recycled/recyclable
PET | MTO



MIDNIGHT
100% recycled/recyclable
PET | MTO



BORDEAUX
100% recycled/recyclable
PET | MTO



FIRED CLAY
100% recycled/recyclable
PET | MTO



SLATE
100% recycled/recyclable
PET | CORE



MAWN
100% recycled/recyclable
PET | CORE



BRECON
100% recycled/recyclable
PET | CORE



FLINT
100% recycled/recyclable
PET | CORE

RPET / RPETCOPOLYESTER

Physical and Standard	Unit	
Density - UCAS ISO 1183-1	g/cm ³	1.28

Mechanical		
Izod Impact Strength - UCAS ISO 180-1	kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2106
Tensile Maximum Load - UCAS ISO 527	N	2721
Tensile Strength (yield) - UCAS ISO 527	MPa	45.2
Tensile Strength (break) - UCAS ISO 527	MPa	45.2
Elongation at Break	%	8
Shore D Hardness - UCAS ISO 868	D	73.3

Thermal		
Heat Deflection Temperature (1.8 Mpa) - UCAS ISO 75	°C	72.6
Thermal Expansion - UCAS ISO 11359	µm/m°C	82.7
Flammability Rating **		BSEN13238:2010 - Class C, s1-d0

Bacterial	Fungal	
Fungi Resistance - ASTM G21-15	Growth %	0
Food Contact - EN 1186	Pass/Fail	Pass

**A 12mm calcium silicate board substrate was applied as defined in BSEN13238:2010

EARTH



QUARRY
100% recycled/recyclable
PET | CORE



SEAFOAM
100% recycled/recyclable
PET | MTO

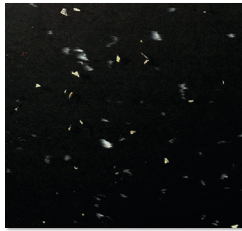


SEASTONE
100% recycled/recyclable
PET | CORE



MOSS
100% recycled/recyclable
PET | CORE

MONOCHROME

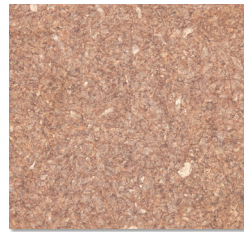


CHARCOAL
100% recycled/recyclable
PET | CORE

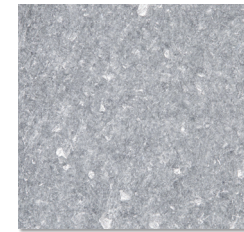
METALLICS



GOLD
100% recycled/recyclable
PET | MTO



COPPER
100% recycled/recyclable
PET | MTO



SILVER
100% recycled/recyclable
PET | MTO

RPET / RPETCOPOLYESTER

	Unit	
Physical and Standard		
Density - UCAS ISO 1183-1	g/cm ³	1.28
Mechanical		
Izod Impact Strength - UCAS ISO 180-1	kJ/m ²	3.93
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2106
Tensile Maximum Load - UCAS ISO 527	N	2721
Tensile Strength (yield) - UCAS ISO 527	MPa	45.2
Tensile Strength (break) - UCAS ISO 527	MPa	45.2
Elongation at Break	%	8
Shore D Hardness - UCAS ISO 868	D	73.3
Thermal		
Heat Deflection Temperature (1.8 Mpa) - UCAS ISO 75	°C	72.6
Thermal Expansion - UCAS ISO 11359	µm/m°C	82.7
Flammability Rating **		BSEN13238:2010 - Class C, s1-d0
Bacterial		
Fungal		
Fungi Resistance - ASTM G21-15	Growth %	0
Food Contact - EN 1186	Pass/Fail	Pass

**A 12mm calcium silicate board substrate was applied as defined in BSEN13238:2010

EARTH



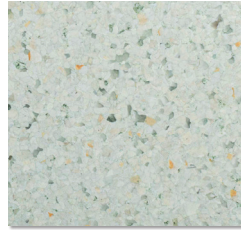
HERON IN GRAPHITE
100% recycled/recyclable
HIPS | MTO



HERON IN DOVE GREY
100% recycled/recyclable
HIPS | MTO



HERON IN STEEL BLUE
100% recycled/recyclable
HIPS | MTO



HERON IN FIR GREEN
100% recycled/recyclable
HIPS | CORE



HERON IN CHESTNUT
100% recycled/recyclable
HIPS | CORE



HERON IN BUTTERSCOTCH
100% recycled/recyclable
HIPS | CORE



HERON
100% recycled/recyclable
HIPS | CORE

MONOCHROME



ALBA
100% recycled/recyclable
HIPS | CORE



HERON DUO
100% recycled/recyclable
HIPS | CORE

RHIPS

	Unit	
Physical and Standard		
Density - UCAS ISO 1183-1	g/cm ³	1.06
Mechanical		
Izod Impact Strength - UCAS ISO 180-1	kJ/m ²	6.8
Modulus of Elasticity (Chord 0.05%-0.25%)	MPa	2240
Tensile Maximum Load - UCAS ISO 527	N	1366
Tensile Strength (yield) - UCAS ISO 527	MPa	21.3
Tensile Strength (break) - UCAS ISO 527	MPa	17
Elongation at Break	%	5
Shore D Hardness - UCAS ISO 868	D	73.9
Thermal		
Heat Deflection Temperature (1.8 Mpa) - UCAS ISO 75	°C	86.2
Thermal Expansion - UCAS ISO 11359	µm/m°C	97.6
Flammability Rating **		BSEN135011:2018 - Class E
Bacterial		
Fungi Resistance - ASTM G21-15	Fungal Growth %	0
Food Contact - EN 1186	Pass/Fail	Pass

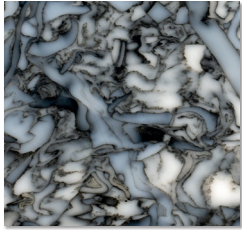
Not recommended for outdoor applications as the material may yellow /destabilise with exposure to UV.

**Flammability Rating: where better ratings are required we can make up Custom materials from waste streams that have a higher rating.

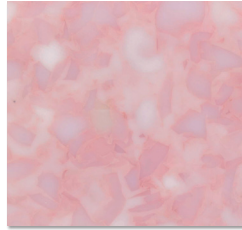
MARBLE



ORCA
100% recycled/recyclable
HDPE | CORE



BLACK DAPPLE
100% recycled/recyclable
HDPE | CORE



ROSE DAPPLE
100% recycled/recyclable
HDPE | CORE



LUNAR DAPPLE
100% recycled/recyclable
HDPE | CORE

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

**Flammability Rating: where better ratings are required we can make up Custom materials from waste streams that have a higher rating.

REIMAGINED MATERIALS,
DESIGNED TO INSPIRE

www.smile-materials.com