



Technical Datasheet

As of October 2022



Eco Lumber.



UV-PROOF | EXCELLENT HARDNESS

DURABLE

Our eco-lumber are very durable, which make them an ideal construction material. Especially in the tropics, our lumber can be exposed without losing their properties which make them suitable for your outdoor projects!



100% MADE IN THE

PHILIPPINES

Proud to say that the entire process is done within The Philippines, leaving no trace for unnecessary transport whilst also tackling the issue of plastic waste where it is needed the most.



ROT-PROOF | TERMITE FREE

LOW MAINTENANCE

We are making use of the best characteristics of plastic - not for single use, but for long lasting projects. Our products are rot proof, splinter- and termite free, which means no worries about having to do any maintenance over a short period of time!



100% MADE OF

PLASTIC WASTE

Our products are made 100% out of recycled plastic waste. On top of that, they are recyclable which means we can shred them and put them back into our recycling process to be turned into our products, if needed, again!

Eco Lumber Plank

13.5 cm x 3.5 cm x 200 cm
8.5 kg

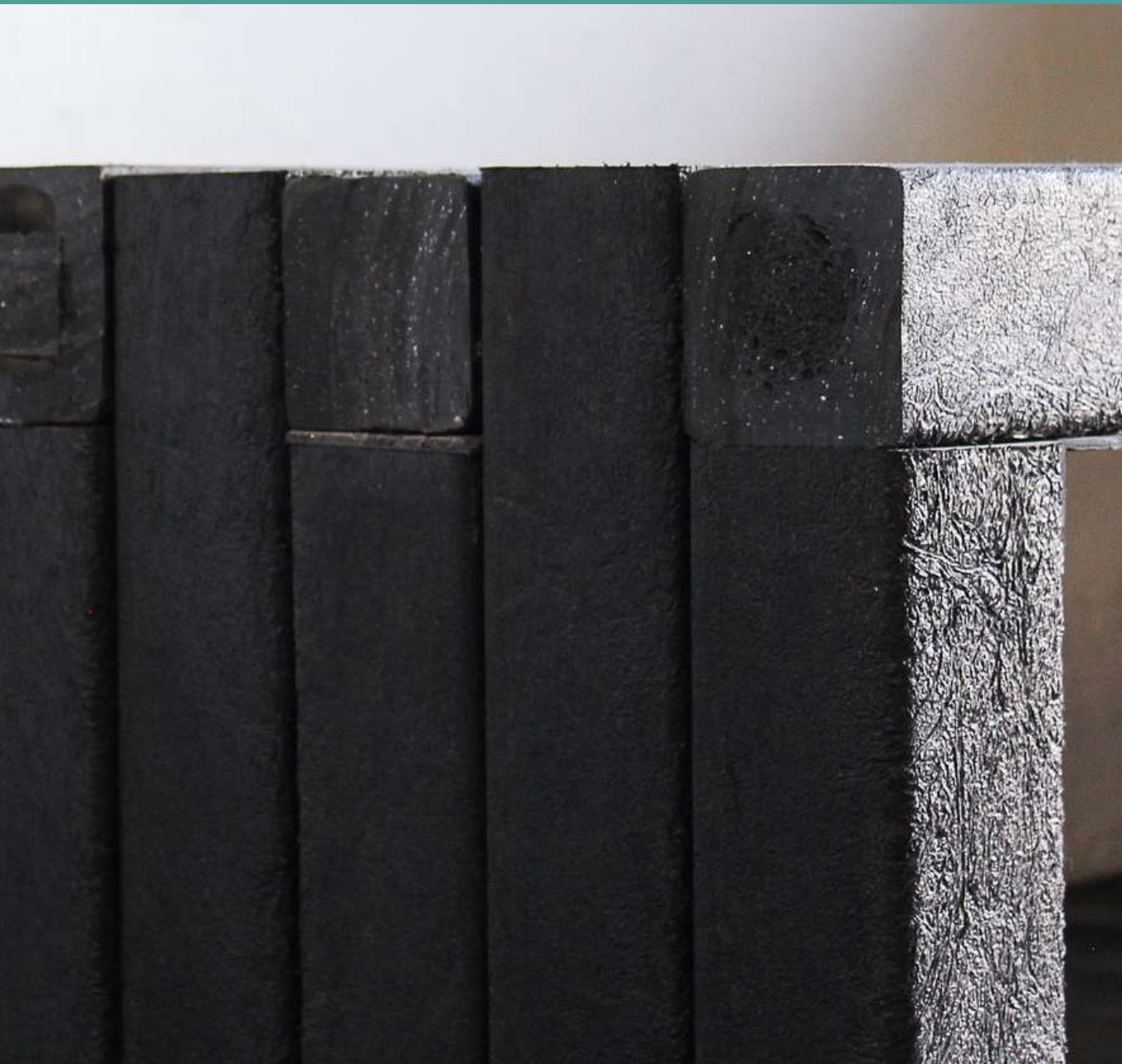
Property	Test Method	Units	Values
Flexural Strength at 3% Strain	ASTM D6109	kg/cm ²	139
Flexural Modulus Secant at 1% Strain	ASTM D6109	kg/cm ²	6414
Compressive Strength at 3% Strain (Parallel to Grain)	ASTM D6108	kg/cm ²	64
Compressive Modulus Secant at 1% Strain (Parallel to Grain)	ASTM D6108	kg/cm ²	368
Compressive Strength at 3% Strain (Perpendicular to Grain)	ASTM D6108	kg/cm ²	12
Compressive Modulus Secant at 1% Strain (Perpendicular to Grain)	ASTM D6108	kg/cm ²	79
Specific Gravity	ASTM D6111	g/cc	0.899
Hardness	ASTM D1037	N	7944
Average Screw Pull-out	ASTM D6117	kg	244
Average Nail Pull-out	ASTM D6117	kg	112
Ultraviolet (Skin)	ASTM D4329	Visual test conducted after 200h of UV exposure	No discoloration and flaking



Usage and disclaimer:

The Plastic Flamingo's eco-lumber are ideal for low-load bearing applications such as outdoor furniture, decking and fencing. They have passed ASTM D6662-17 Standard Specification for Polyolefin-Based Plastic Lumber Decking Boards. They are non-structural grade and The Plastic Flamingo cannot be taken responsible for any accident caused by the use of products in structural applications without proper reinforcements.

Technical data presented on the left are average values and not minimum values. Safety factors must be added to the design.



Eco Lumber Post

9.0 cm x 9.0 cm x 300 cm
20.5 kg

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Technical data presented on the right are average values and not minimum values. Safety factors must be added to the design.

Property	Test Method	Units	Values
Flexural Strength at 3% Strain	ASTM D6109	kg/cm ²	166
Flexural Modulus Secant at 1% Strain	ASTM D6109	kg/cm ²	9290
Compressive Strength at 3% Strain (Parallel to Grain)	ASTM D6108	kg/cm ²	125
Compressive Modulus Secant at 1% Strain (Parallel to Grain)	ASTM D6108	kg/cm ²	3019
Compressive Strength at 3% Strain (Perpendicular to Grain)	ASTM D6108	kg/cm ²	79
Compressive Modulus Secant at 1% Strain (Perpendicular to Grain)	ASTM D6108	kg/cm ²	1681
Specific Gravity	ASTM D6111	g/cc	0.899
Hardness	ASTM D1037	N	7944
Average Screw Pull-out	ASTM D6117	kg	244
Average Nail Pull-out	ASTM D6117	kg	112
Ultraviolet (Skin)	ASTM D4329	Visual test conducted after 200h of UV exposure	No discoloration and flaking



Eco Boards.



ALMOST-IMPOSSIBLE-TO-RECYCLE

SACHET

The Philippines is known to be a "sachet economy". Through the production of our eco-boards we have found a solution to incorporate the difficult-to-recycle single use packaging, often known more as "sachets"!

RECYCLED PLASTIC

ECO-BOARDS

Our boards come in a fixed shape of 120x120cm panels. They are available in various thicknesses, 10, 16 and 22mm thickness. This make them very suitable for a wide range of projects, such as formwork, furniture, partitions, you name it!

COMPRESSION MOLD | HOT PRESS

RECYCLING LINE

Through recycling process of a compression molding, plastic waste is being pressed into its new shape. After cooling down, the product is revealed and they are stiff and ready to be used. They can be compared to marine plywood.

EACH BOARD IS

UNIQUE

Working with waste, means we work with different types of waste each time. We choose to let them be, as they are. no top coat or paint. This way, each board is turned into a unique product with its own unique features. It also makes it easier to, at the end of their life cycle, recycle them into new eco-boards!



Eco Board

100% Flexible Plastic

120 cm x 120 cm

Property	Test Method	Units	Values
Flexural Strength	ASTM D790 ISO 178	MPa	14.1
Flexural Modulus	ASTM D790 ISO 178	MPa	503
Compressive Strength	ASTM D695	MPa	10.4
Modulus of Elasticity	ASTM D695	MPa	603
Water Absorption	ASTM D570	% weight	0.391

Thickness	Weight
10.0 mm	13.0 kg
16.0 mm	18.0 kg
22.0 mm	25.0 kg

Usage and disclaimer:

The Plastic Flamingo's eco-boards are ideal for low-load bearing applications such as furniture, partitions and formwork. They are non-structural and The Plastic Flamingo cannot be taken responsible for any accident caused by the use of our products.

Eco Board

Multi-layered Plastics

120 cm x 120 cm

Property	Test Method	Units	Values
Flexural Strength	ASTM D790 / ISO 178	MPa	17.2
Flexural Modulus	ASTM D790 / ISO 178	MPa	678
Compressive Strength	ASTM D695	MPa	13.1
Modulus of Elasticity	ASTM D695	MPa	693
Water Absorption	ASTM D570	% weight	0.442

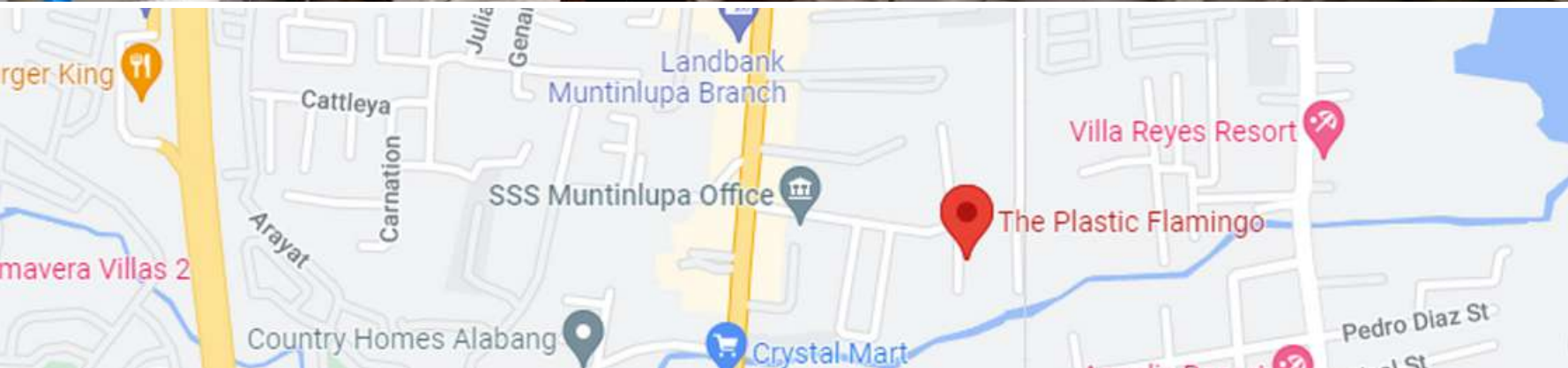


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Pellets.



HIGH QUALITY

POST CONSUMER

For our pellets, we use post consumer plastic waste, that has been collected either through our collection points in Metro Manila or purchased from our selected junkshops.

BLOWING GRADE

WHITE HDPE

Our pellets are made 100% from recycled home and personal care white HDPE bottles. They are carefully sorted, crushed, hot washed and pelletized into high quality blowing grade white HDPE pellets

PACKAGED

IN SACKS

We provide the pellets in 25 kg sacks piled and wrapped on pallets. Each pallet contain 50 sacks for a total weight of 1,250 kg.

100% MADE FROM THE

PHILIPPINES

You can pick-up our pellets directly at our factory, located at Block 6, Building 2, Tapaurel Compound, Putatan, Muntinlupa, Metro Manila

rHDPE Pellets

Property	Test Method	Values	Units
Polymer type	-	HDPE	-
Color	Visual	White	-
Appearance	Visual	Pellets/Resin	-
Melt Flow Index	D1238-20 (@2.16 kg load)	0.43	g/ 10 min
Melting Point	DSC Analysis	135.35	°C
Crystallization Point	DSC Analysis	113.98	°C
Temperature at 5% weight loss	TGA Analysis	around 447.48	°C
Density	ASTM D792-20	0.9638	g/cm ³



Usage and disclaimer:

The Plastic Flamingo's pellets are made from post consumer recycled HDPE plastic waste. The Plastic Flamingo cannot be taken responsible for any accident caused by the use of our products.

rHDPE Pellets

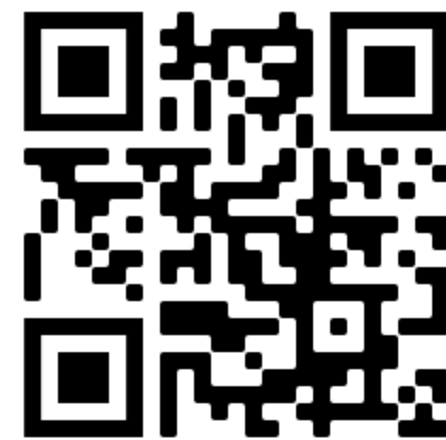


Property	Test Method	Values	Units
Tensile Strength at Yield	ASTM D638	23.83	MPa
Tensile Strength at Break	ASTM D638	5.08	MPa
Elongation at Yield	ASTM D638	35.27	%
Elongation at Break	ASTM D638	430.13	%
Tensile Modulus	ASTM D638	1281.77	MPa
Single Notched Izod Impact Strength	ASTM 6610	50.73 (Partial Break)	J/m
Double Notched Izod Impact Strength	ASTM 6610	41.78 (Complete Break)	J/m
Tensile Strength at Yield	ASTM D638	23.83	MPa



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PLASTIC RECYCLERS



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