



BioDur

MYNUSCO
Biomaterials platform for circular economy

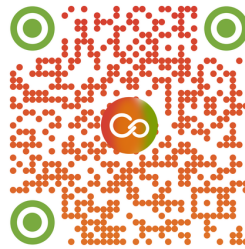
Biomaterials for durable needs

Your earth friendly material choice to make
durable and recyclable products

CIRCULAR CLIMATE FRIENDLY MATERIAL

Plastics play an important role in our lives - it has improved healthcare, food security, transport safety, home comfort, etc. However, plastics increase CO2 emissions and account to 5% of global GHG emissions. Many alternative materials considered to replace plastics are either not circular, not scalable, not versatile, usually having higher carbon footprint and at a higher cost compared to plastics.

BioDur Biocomposites made from crop-residue & fast-renewables offer benefits of plastics at a significantly better environment footprint. They are affordable, climate friendly & circular alternative to plastics.

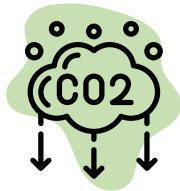


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MANY BENEFITS

REDUCE CO2

Biocomposites enable biogenic carbon to be locked in the products. They are made with repurposed material & recycled after use,



CONSERVE RESOURCES

Replacing fossil resources with crop-residue & fast-renewables enable us to conserve limited resources available.



HIGH PERFORMANCE

Offers higher strength and stiffness with durability as good as plastics. Grades with weather resistance are available for outdoor use.



GREAT LOOK & FEEL

Natural fibers visible on the surface of the products provide earthy look. Haptics of the products have natural appeal.



END TO END SERVICE

MATERIAL SUPPORT

We support you with material selection & new material development

PROCESS SUPPORT

We support you with moulding & processing of material at your site

PRODUCT SUPPORT

Product development and manufacturing support for your diverse needs

LCA SUPPORT

Proprietary technology to track your product sustainability footprint



BIODUR BIOCOMPOSITES

Material Family	Bio Content (%)	Recycle Content (%)	Binder	Tensile Strength (MPa)	Flexural Modulus (GPa)	Elongation (%)	Notched Impact (KJ/M2)	HDT (@ 0.46 MPa)	Density	Mold Shrinkage %	Remarks
BioDur - S	20 - 90	0 - 80	Recycled, fossil or bio-based	30 - 60	2.0 - 5.0	2.0 - 6.0	2.5 - 5.0	120 - 155	0.94 - 1.1	0.6 - 1.0	Standard stiffness applications
BioDur - I	20 - 80	0 - 70	Recycled, fossil or bio-based	20 - 40	0.8 - 2.0	4.0 - 15.0	5 - 25	110 - 145	0.94 - 1.1	0.6 - 1.0	Flexible & high impact applications

WIDE RANGE OF FIBER CHOICE

BAMBOO

Bamboo is fast-renewable, light weight with high strength. Use them where performance is important. We use offcuts from bamboo product manufacturing industries,



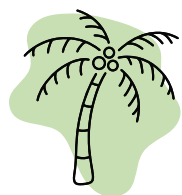
HUSK & STRAW

Husk and straw are crop-residue, that is usually burnt or discarded. Use them to create value for farmers, prevent crop-burning & give your products a good story to tell & sell.



WOOD & COIR

Offering moderate to high performance, they are good alternative to bamboo fibers. We use offcuts from coir and wood product manufacturing industries



STARCH

Use starch for increasing the bio-content, ease of processing and better design freedom with colors. We source starch derived from maize, corn, tapioca or potato.



We have experience across various other biomass such as banana fibers, spent barley, pine, sisal & almond shells. Depending on your specific requirements, we can use different biomass in our BioDur range of biocomposite materials.

DIVERSE AREAS OF PPLICATION

AUTOMOTIVE

Light weight automotive interior and exterior components



HOMEWARE

Guilt-free homeware products that are safe for your family & friends



GARDENWARE

Sustainable gardenware planters made from elements of plants



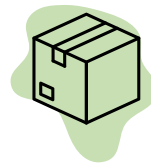
PALLETS / CRATES

Better than wood and plastic for material handling solutions



PACKAGING

Packaging solutions that uplifts your product and brand positioning



TOYS & GAMES

Enabling our future generations to grow with sustainable toys



FURNITURE

Transition the moulded furniture into a sustainable option



GIFTS / STATIONERY

Celebrate sustainability while gifting your friends & colleagues



TOOTHBRUSH

Make everyday morning a reason to smile with eco-toothbrushes



DISPOSABLES

Replace disposable products with durable & reusable products



PERSONAL CARE

Make personal care products to show our care for our earth



INDUSTRIAL

For your Industrial and construction tools & equipment needs



We have experience of using BioDur across various other products and industries. We are confident that BioDur biocomposites can drive positive change by replacing plastics in rigid and semi-flexible applications.



BIODUR - I (HIGH IMPACT BAMBOO FIBER GRADES)

Material Grade	Tensile Strength (MPA)	Flexural Modulus (GPA)	Elongation (%)	Notched Impact (KJ/M2)	HDT (@ 0.46 MPA, Deg C)	Density	Mold Shrinkage %	Application Areas
PB20MI	22	1.2	10	9	110	0.95	0.9	Home, Toys, Automotive, Furniture, Packaging
PB30MI	24	1.6	8	10	120	1.0	0.8	Home, Toys, Packaging, Garden, Pallet
PB40MI	26	2.0	6	12	130	1.04	0.7	Industrial, Automotive, Garden
PB50MI	28	2.4	5	12	140	1.08	0.6	Industrial
PB20MIG	20	1.0	12	15	110	0.95	0.9	Packaging, Automotive, Toys
PB20MIG	22	1.2	10	14	120	1.0	0.8	Automotive, Toys, Packaging

BIODUR - S (HIGH STIFFNESS BAMBOO FIBER GRADES)

Material Grade	Tensile Strength (MPA)	Flexural Modulus (GPA)	Elongation (%)	Notched Impact (KJ/M2)	HDT (@ 0.46 MPA, Deg C)	Density	Mold Shrinkage %	Application Areas
PB20MS	36	2.7	6.0	3.0	120	0.95	0.9	Home, Toys, Automotive, Furniture, Packaging
PB30MS	38	3.2	4.0	3.4	130	1.0	0.8	Home, Toys, Packaging, Garden, Pallet
PB40MS	40	3.8	3.5	3.8	140	1.04	0.7	Industrial, Automotive, Garden
PB50MS	42	4.0	3.0	4.0	150	1.08	0.6	Industrial
PB20MSG	50	3.4	4.0	3.5	130	1.02	0.9	Automotive, Furniture, Industrial
PB30MSG	55	4.0	3.5	4.2	140	1.06	0.8	Automotive, Furniture, Industrial

BioDur biocomposite materials are recyclable at the end of their use. They can be made with fossil based, recycled or bio-based binders. They can be made with wide range of natural fibers. We have more than 1000 grades to choose from. If your product & process needs are unique, we can customize to suit your requirements.

BioDur

CERTIFIED BY INTERNATIONAL LABS



NATURAL & VIVID VISUALS

	NATIVE	NATURAL	OFF WHITE	PASTEL	DARK
LOW FIBER VISIBILITY					
MODERATE FIBER VISIBILITY					
HIGH FIBER VISIBILITY					