About the group

GW Lanka Exports and Biosubstrates have joined hands to produce some of the finest quality coir fiber and pith products in the industry. Located in the heart of abundant coconut plantations known as the "Coconut Triangle" in the beautiful pearl-shaped paradise island of Sri Lanka, a set of highly skilled and motivated employees produce a wide array of coco peat products.

GW Bio group was established in 2003 by a veteran in the industry, and henceforth built a reputation for providing the highest quality coir fiber and pith products for various sectors from the industrial to the horticultural and agricultural industry.

From our humble beginnings, we ensured that all our products were 100% natural and organic. Now using the same values and principles, we have diverted into many segments whilst not losing sight of what is most important - our valued stakeholders. This is the secret to our success.

GW Bio group employs the most modern technologies and machinery along with a highly trained and passionate staff in order to ensure that our products are consistently monitored for quality standards at every stage of the production process; from the time of raw material (coir and coir pith) sourcing to the time when the finished product leaves our factory in Sri Lanka -> to deliver a coir pith product of the utmost excellence.

Biosubstrates is one of the pioneer members of Exporter Association of Coconut based substrates

WHY YOU SHOULD USE COIR PEAT AND COCO CHIPS ?

After many researches done by scientist and agronomist all over the world, found out that why we should use coco peat as substrates.

Excellent air porosity

Coco peat maintains excellent air porosity in the substrate at the roots growing area gives healthy plant with faster growing and it leads to have high yield in the end.

Excellent water retention

Lignified coco peat gives excellent water retention while you grow the plant at any climate or at any season throughout the year, which gives more benefit to the industry even if you grow the plant at the time what's demands comes.

Quickly reabsorbs water from dry state

Coir peat absorb moisture immediately even from a dry state (unlike sphagnum peat which tends to shrink when dry and from a water repellent crust which causes water run-off from the top surface and water loss in the bed)

Irrigation Efficiency

The ease of re wetting and the quick drainage characteristics of coco peat mean that coco peat needs to be irrigated less frequently and for shorter period. This leads to reduce leaching losses of nutrients and lower water use through the dripped irrigation system.

Faster Germination time and quick growing

The inherent qualities of coco peat, and optimum water retention and air porosity are ideal for quick rooting and propagation. In many cases this leads to more seeding rotations per year. A higher percentage of seeding and propagation take up more efficient use of greenhouse equipment.

Degrades Slower

The lignin content of around 45% ensures that the excellent water/ air ration is maintained over a longer period of time that is the case with many other substrates.

Free from soil diseases

Because coir originates above ground it does not contain any soil diseases. In fact several studies have indicated that coir substrate bring increased resistance to pithier and other roots diseases.

Environmental friendly

Coco peat is the by product which made out of coir fiber using the coconut husk. Coconut husk is reusable natural material which doesn't leads to environmental pollution such as rock wool and peat moss product

COCO GROW BAG

Grow bags are an ideal growing medium for plants that do not have deep roots such as tomatoes, cucumber, eggplant, strawberry and pepper. Grow bags are popular among greenhouse professionals as a prominent product which comes on a compressed slab in a polybag. They are used in the floriculture industry for Roses, Gerber and many more seasonal and non-seasonal flowers.

There are different types of grow bags based on the material used in the compressed slab:

1. 100% Coco peat materials

2. 100 % Coco Chips materials

3. Different percentage of Coco peat and Coco chips and Coco fiber materials

Advantages of Grow Bags

Grow bags are the ideal media for roots development as they allow for a high air capacity. Plants tend to grow stronger by combining all the recommended nutrients and fertilizers equally. Since it is very user friendly and convenient to use in greenhouses as well as outdoor gardens, grow bags are the most popular hydroponic product among both beginners and professional gardeners.

Why GW Bio Group

- ***Maintains strict quality standards to serve you with the best quality product***
- ***Beyond the standard sizes, we could also customize the product***
- ***Unmatchable pricing for your grow bags using any of our materials mixtures and sizes available.***
- ***Manufactured under state of art manufacturing plants using 100% Renewable, Organic Coir Pith and Coconut Chips***
- ***Packed in a thick co-extruded gazette of UV stabilized plastic bags with waterproofed sealing***

PLANTER BAGS

GW Bio group's planter bags are ideal for growers who lack space for gardening. Planter bags are ready to use, flexible packs that replace pots. Simply add water and wait for 20 minutes for the mixture to absorb water and expand to the right level. Then the plant can be added.

Planter bags are ecofriendly with 100% coco peat or a mixture of peat and chips to provide an excellent growing medium for the plants. At the end of the growing season, the bag can be easily rinsed and stored.

Advantages of Planter bags

- ***Very durable, flexible and re-usable.***
- ***Comes in various sizes and shapes and can be customized. For Instance, some plants such as carrot and beetroot need a deep container while lettuce and spring onions require less depth.***
- ***Saves effort and considerable amount of money for compost.***
- ***Can be easily moved and arranged in a real garden even in a limited space.***
- ***They are very easy to set up with a three step process such as unfold, add water and grow.***
- ***Warms quickly in the spring, releases excess heat in the summer.***
- ***Provides excellent drainage without holding excess water***
- ***Air prunes the roots which causes a better root system.***

COCO PEAT 25KG BAG

Coco peat 25kg bales are produced based on the crops' requirement by increasing or decreasing the percentage of coir fiber in the mixture. We can also add coco chips or crushed materials into the mixture. The benefit of the 25kg bale include it being less compressed and easy to loosen up, and also maintains the moisture content between 35 - 40%.

It can be used as a soil substitute and soil conditioning in potting mixers, m landscaping, seed generation, home gardening, golf courses, and mushroom farming.

The bales are also popular amongst Bonsai mixtures, vegetable beds and rose cultivations. Each bale is packed in a white polybag which makes for easy transportation and handling.

Product Details: -

Weight: 25Kg +/- 3 Kg

Size: 32 X 44 X 80Cm +/- 2Cm

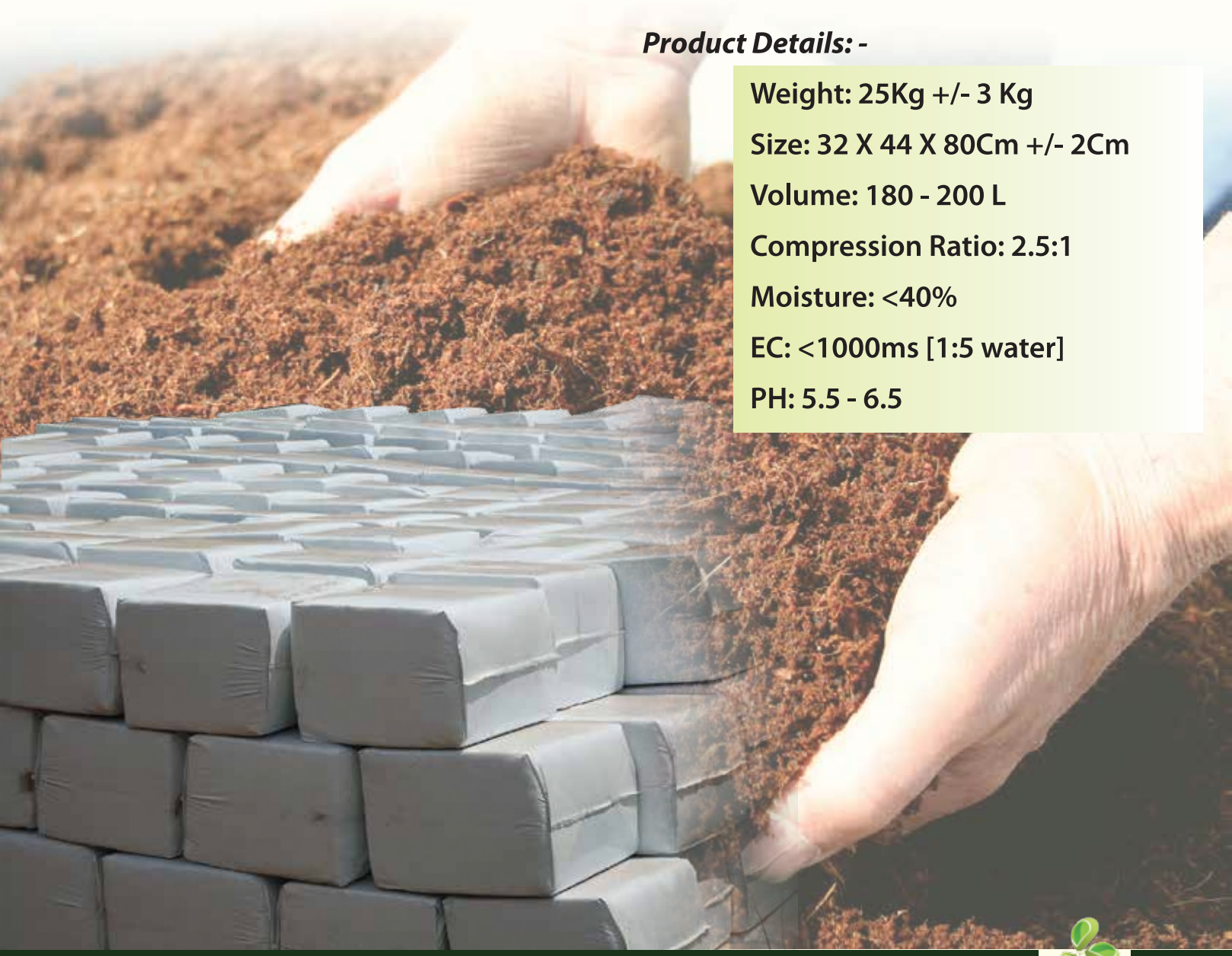
Volume: 180 - 200 L

Compression Ratio: 2.5:1

Moisture: <40%

EC: <1000ms [1:5 water]

PH: 5.5 - 6.5



COMPRESSED COCO PEAT - 5KG

Coco peat is a byproduct gained during the extraction of coir fiber from the coconut husk. It is a 100% natural, spongy cellulose organic plant growing medium. Coco peat is dried and processed to produce a compressed 5kg block, which makes for an excellent growing medium in hydroponics or container plant growing. Clean coir has natural rooting hormones and anti-fungal properties. Coco peat also has a high water retention capacity and is a cheap substitute and natural organic product.

Advantages of Coco peat

- **Water retention and drainage - Coco Peat holds holds 8-9 times its weight in water.**
- **Low compaction - Tough, coarse fibers resist crushing. More airspace means more oxygen can reach roots.**
- **Low maintenance - Requires less maintenance than usual potting mixes as it retains moisture and nutrients.**
- **Environmentally-friendly - has the ability to store and release nutrient to plants for extended periods of time.**
- **Disease-resistance - Less humidity due to good drainage means fewer diseases strike seedlings grown in coco.**
- **Worm growth**
- **Nutrient balance**

COCONUT HUSK CHIPS

Coconut Husk chips are produced by slicing coconut husks into uniform sizes. These chips are some of the best soil conditioners in the world and can be used as an alternative to Fir Bark in the farming and agricultural industries. Coco Husk chips enhance the efficiency of fertilizers under any soil and weather conditions. They are free of weeds, and repel insects and harmful fungi. The chips are commonly used in the commercial cultivation of Gerberas, Orchids and Anthuriums.

The husk protects the inner germinating seed by preventing excess saturation and salt. It has both high water holding capacity and retention of plenty of air. Therefore, a lot of watering is unnecessary.

The husk chips are mainly used in Grow Bags, Mini Planter Bags, Disks and compressed blocks for potting mixing purposes in different percentages.

Why GW Bio Group:

- ***All our materials support excellent drainage, and high cation exchange capacity (CEC)***
- ***Cuts down fertilizer application***
- ***Prevents stress after repotting***
- ***Natural pH level with identical EC level***
- ***Resists fungal growth***
- ***A 100% natural and renewable resource***

COCO DISC

Coco peat discs are made from blended coconut husks or peat. The discs are highly absorbent and swell up like a sponge to produce the required potting soil mixture. These discs are ideal for home and commercial hydroponics where the following advantages can be seen:

- Suitable for seed rising, saplings and seedlings, and also an excellent growing medium for fully grown plants.
- No fertilizer is required, resulting in faster seed-germination while maintaining moisture in the plant roots.
- Excellent air filled porosity, efficient water holding ability, and efficient growth of the root system of flowering plants, which ensure bigger, more colorful flowers and healthy leaves.

Why GW Bio Group:

- Total flexibility by supplying large volumes as a potting soil, shipped in a compressed format.
- We work with tight deadlines and provide customized coco discs or pellet product designs at the highest quality.
- We offer discs to suit each stage of plant development for professional growers.
- Coco peat discs are incredibly easy to use, lightweight, and practical to setup in a Greenhouse, field or home.
- We can produce discs to fill any size of plant pot volume and also have a wide range of popular sizes.
- Our coco peat discs can be found in the best selling horticultural retail products worldwide.

COCO PEAT BRIQUETTES - (600 - 650g)

Coco peat briquettes are coco peat compressed into brick form. It is an organic growing medium, which is 100% Coir. These easy-to-use briquettes are smaller in size and work in the same way as the coco peat blocks. They absorb water and swell up to about ten times their volume. One 600g briquette provides approximately 8 liters of pure coco peat.

Coco peat briquettes are ideal for home gardens, horticulturalists, greenhouses, commercial nurseries and large, medium and small scale growers. Having a stable pH of 5.5 - 6.5, it does not compact or become more acidic over the time. They are excellent for propagation, water retention, soil aeration, seed germination, and a multipurpose soil conditioner.

Specifications of Product Coco Peat 600/650g blocks

- Compression Ratio 8:1
- Expansion Volume 8-10 liter (After adding water)
- Size 20 x 10 x 5 cm
- E.C Below 0.50 m S / cm or Below 1.00 ms/cm
- Moisture Below 20%

Why GW Bio Group.

- The brick weighing 600/650 grams can be either individually shrink wrapped or placed in carton boxes.
- They can be hand-carried as they are lightweight.
- The brick can be supplied with or without the buyer's printed labels.
- They can be purchased washed, buffered or unwashed.

COIR WEED MAT

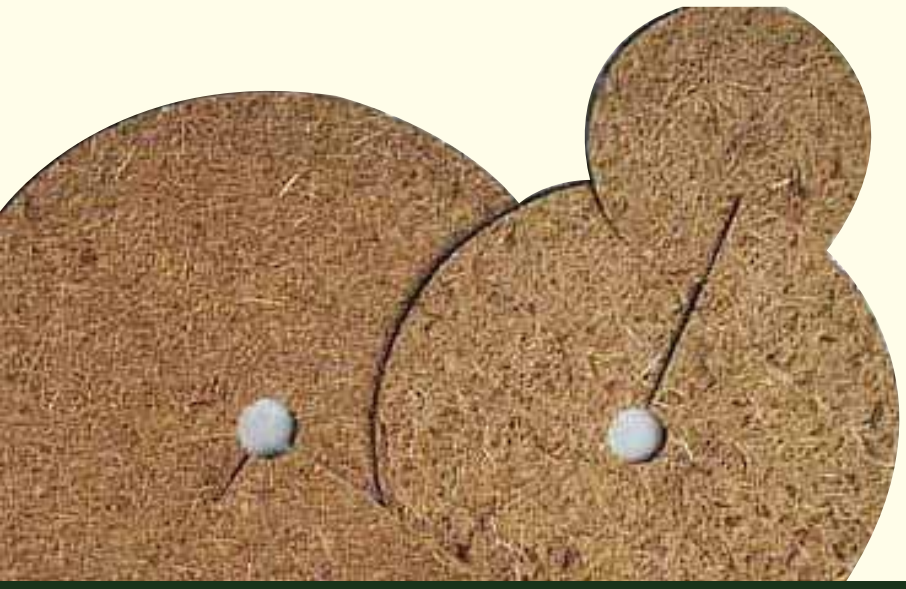
Weed mat is composed of a needle-punched mattress coir pad with natural latex. This natural coir pad is excellent to control weeds in tree plantations, and perennial slope landscaping. The coir weed mat biodegrades over time, and provides mulch since it is 100% biodegradable. Mulching helps the young tree obtain essential nutrients needed to survive the early stages of development and to suppress the growth of weeds around its root system.

The 1cm thick weed mats are available in individual mats as well as in rolls. Each weed mat can be customized and split for easy application.

Advantages of weed mat

- Weed mat rolls provide one-step erosion control, weed control mulching in perennial slope landscaping.

- Weed Mat is an environmental friendly natural option for any location looking to control the growth of weeds The volume of weeds will be reduced by 90 to 95%., translating to a very large saving in labor and no herbicides are needed.
  Nurseries that use overhead sprinklers will also benefit as water will not bounce off the guards. It will be trapped by the rough surface and then the water will immediately penetrate the discs. This will prevent waste and soil borne pathogen from spreading.



COIR FIBER BALES

Coir fiber is extracted from coconut husks and graded depending on the process. Mattress fiber, mixed fiber, Omat fiber and Bristle fiber are some of the common grades. This extract is dried in order to maintain moisture level, and goes through quality control in order to remove the impurities and other particles. Finally, the fiber is compressed into bales with plastic strapping in order to maximize the loadability.

Each bale would weigh approximately 125–150kg, and the loadability will not be less than 18MT in a 40 HC container.

Uses:

- To manufacture sleeping mattresses
- To produce car seats and in the upholstery industry
- To produce erosion control products
- To produce yarns and ropes
- In sound and heat resistance applications

Why GW Bio Group?

- Depending on your requirement, we will propose the appropriate grade.
- We guarantee that the materials are clean, contain minimum moisture, and have less impurities.

BRISTLE FIBER

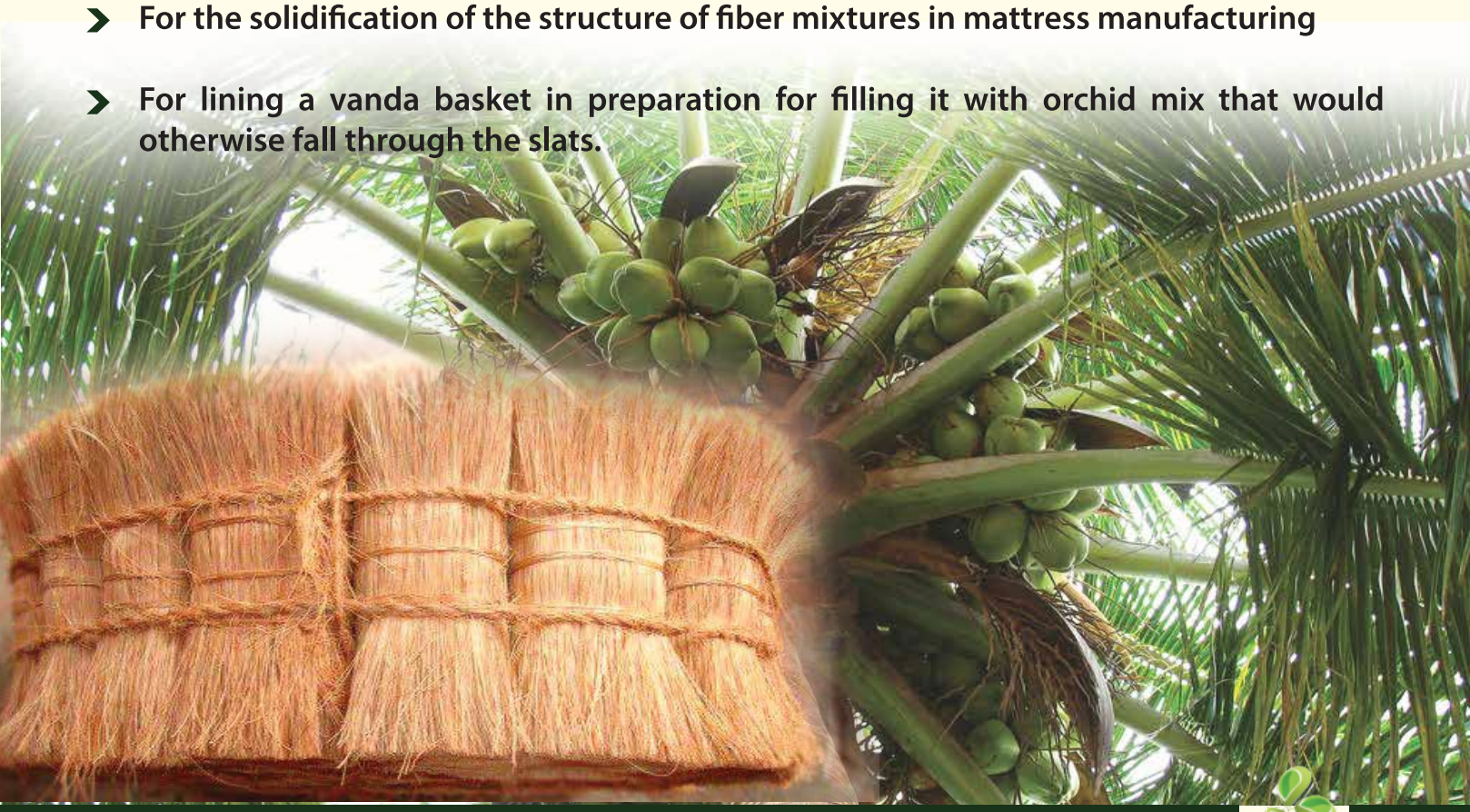
Bristle Fiber is composed of the stiff and long strands of coir fiber. Producing bristle fiber involves keeping the immature husks in a water-filled pit for 2 to 6 months where microorganisms break down the plant tissues in a process known as retting. The long fibers are separated by a milling process and subsequently dried and cleaned.

Brown fibers are extracted from seasoned coconuts which have lost their green color and depending on the combing, we have categorized the fiber as 1 Tie, 2 Tie and 3 Tie fiber. The brown fiber could also be chemically converted into white or black fiber. They can also be cut into different sizes such as 12cm, 15cm, 17cm, and 18cm. The finished fibers are packed in sacks having an average weight of 12kg for easy handling.

Bristle Fiber has substantial moisture retention properties with good aeration.

Main uses of bristle fiber:

- For the production of Coir Twine
- For brushes, brooms, banisters and Tawashi Industries
- For Potting Mixes/Growing Media
- For the manufacture of special filters
- For the solidification of the structure of fiber mixtures in mattress manufacturing
- For lining a vanda basket in preparation for filling it with orchid mix that would otherwise fall through the slats.



MACHINE TWISTED FIBRE (FMT)

Twisted Coir comprises 100% Mattress Fiber or Mixed Fiber and several mixes of Bristle Fiber. The twisting is done mechanically and called Fuehrer Machine Twisted (FMT) fiber.

We have a range of Twisted Coir, which is made utilizing matured brown coir fiber that is sourced from the fibrous cover of coconut. Machine Twisted Fiber is available in different mixtures of Mattress fibre, Mixed fibre, Omat fibre and Bristle fibre based on the final application or as requested by the buyer.

Applications of Machine Twisted coir fiber

Mattresses: helps to produce rubberized coir sheets used in manufacturing mattresses, which have anti-moist, good ventilation, and low liquid absorbency properties. The natural coconut fiber has the precise softness that has proven to be the best way to prevent spinal illnesses.

Automobile Upholstery: commonly used in making rubberized seats where the curl shape of the fiber rope adds a spring effect to the fibers.

EROSION CONTROL BLANKETS/COCO MAT (COIR BLANKET, COIR MAT)

Erosion Control Blankets/Coco Mats are made using 100% coconut film. Biodegradable soil erosion control blankets are one of the most natural ways to stabilize and reinforce soil in your area. As the mat stabilizes the soil area, vegetation and other materials are able to take root.

Benefits:

- **They increase water infiltration into the soil.**
- **When used with a seed mix, they protect the mix from being eroded during heavy rainfall or wind.**
- **They increase the retention of soil moisture to promote seed germination.**
- **They reduce soil erosion.**

WHY GW Bio Substrate

- **Coir Blankets can be supplied in roll form with a maximum width of 2.4m and length of up to 50m.**
- **The thickness of the coir blanket can be changed according to the required and specific applications.**
- **Ideal for extreme slopes, high discharge channels, and vegetation reinforcement.**
- **Designed for various types of erosion control and irrigation conditions.**
- **Equipped with clear and impermeable polypropylene wrapping, which does not undergo deterioration.**

COIR GEOTEXTILE (COCO NET)

Geo-textiles are made of pure coir, drawn from the husk of the coconut, and without adding any synthetic material. It is used as a blanket to prevent soil erosion, and accelerates the growth of vegetation on banks and slopes.

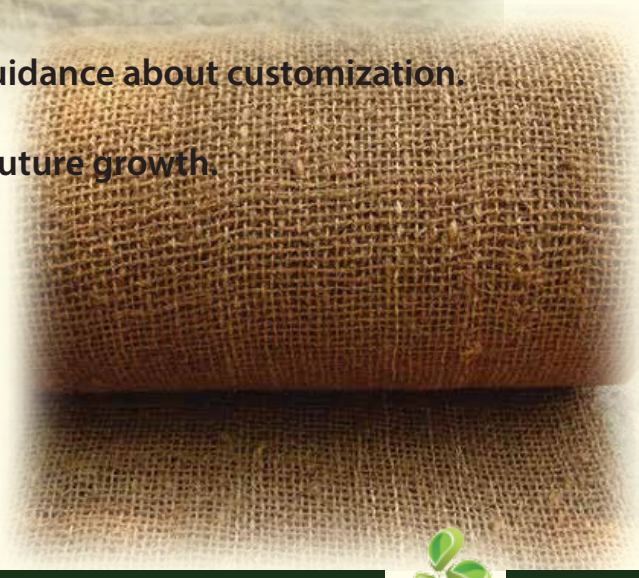
Advantages of Coir Geotextile (Coco Net)

It is used for soil stabilization, reinforcement, and landscaping and erosion control. Since coir fiber is naturally resistant to rot, mould and moisture, no chemical treatment is required. Geo-textiles can dissipate the energy of flowing water, absorb excess solar radiation, and control erosion in stream banks, slopes, wetlands, hillside soils and golf courses.

Geotextiles have been voted as the Best Management Practice by many Environmental and Governmental Organizations to help reduce soil loss and establish new vegetation.

Why GW Bio Substrate

- Reduces the need for maintenance of all plants as they promote the development of stronger roots.
- Works well in areas of limited access as they are easy to install.
- Our Geo-textile nets have a lifespan of about five years and enrich the soil when decomposing.
- They are 100% biodegradable and can be tailor-made to suit the customer's specifications.
- Choose from three grades, most common are 400g/sqm, 700g/sqm and 900g/sqm geo textiles.
- Contacting our local agents can provide further guidance about customization.
- Shield plants from further damage, and promote future growth.



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