

Gro-Med[™]

The perfect growing medium...
to grow your profits!



 **Vaighai[™]**
Worldwide

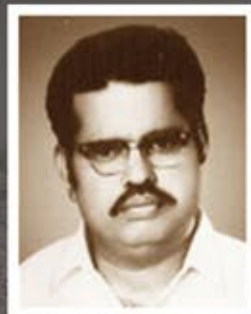
VAIGHAI GROUP PROFILE

- ◆ Incorporated in the year 1981
- ◆ 4 Core Business Areas – Chemical, Agro Products, Animal Feed & Coir/ Coco Products
- ◆ Focus Verticals: 4 F's – Farm | Food | Feed | Fertilizer
- ◆ 700+ Vaighaians
- ◆ Over 2000 Satisfied Customers
- ◆ Export to over 40 + Countries in 6 continents
- ◆ Revenue of USD 60+ Million
- ◆ Operations in India & Sri Lanka

OUR FOUNDERS



Shri K. Periyasamy Nadar



Shri S. Varadarajan



Shri S.S.V. Chellakani Nadar

**Chemical
Division**



**Agro
Division**

VAIGHAI GROUP

**Animal Feed
Division**



**Coco Peat
Division**

CHEMICAL DIVISION

- ◆ 37 years in the manufacturing of Potassium Chlorate field
- ◆ India's second largest Potassium Chlorate Manufacturer
- ◆ India's largest Potassium Chlorate Exporter
- ◆ Exporting to more than 20 countries incl. USA
- ◆ India's First & Only Potassium Chlorate company to receive ISO Certification
- ◆ ISO 9001 (Quality), ISO 14001(Environment) and OHSAS 18001(Health & Safety) certified
- ◆ Wide distribution network in India with 9 Depots located at strategic locations



AGRO DIVISION

- ◆ 27 Years in the Rice Bran Oil Extraction Industry
- ◆ Factories located at Madurai, Tirunelveli & Namakkal
- ◆ Combined Rice Bran Processing Capacity of all 3 factories - 300,000 TPA
- ◆ Bagged India's Highest Rice Bran Processor Award for 9th consecutive year
- ◆ Direct sourcing from rice mills through 60+ sourcing centres in India, Reaching 1200 Rice Mills daily
- ◆ Since 2002, Having direct sourcing centre in Sri Lanka to procure rice bran from 200+ rice mills across all Island
- ◆ 5S Practice - India's First & Only Solvent Extraction company to receive 5S Certification



ANIMAL FEED DIVISION

- ◆ Unbundled products - to fulfil the nutrition requirements of cattle
- ◆ Dedicated Product development and R&D team
- ◆ Over 15+ variety of products
- ◆ Presence in State of Tamil Nadu and Kerala in India



COCO PEAT DIVISION

With over three decades of rich experience and exposure to the Agro industry, Vaighai Worldwide started its coco peat division during 2012, is now a world leader and India's largest exporter of coir and coco peat substrates. We have our manufacturing unit at Pollachi with world-class infrastructure, skilled people and well laid quality control process at all stages - raw pith storage, washing, compressing and packing.

We have helped grow hundreds of our clients crops and profits, thanks to our painstaking process of producing perfect coco peat - we have named it as Gro-Med.

Our products are currently exported to over 25+ countries worldwide. We offer a wide range of Gro-Med coir substrate products in your specific stated sizes, shapes and specifications pertaining to following applications.

VAIGHAI ADVANTAGE

- Consistency in quality and deliveries
- Customized specification and packing
- Capable to supply volume orders
- Assured supply in all seasons 365 days – Multiple Origin Supply
- Well trained people in sourcing, marketing and operations across all locations
- Product Application Experts - Our People are expert in giving solutions to customer needs



WHAT IS COCO PEAT ?

Coco peat also known as coir pith, coir fibre pith, coir dust, or simply coir, is made from coconut husks, which are byproducts from coir fiber mills while extracting coconut fiber. Coco peat from coir fiber industries is washed, screened and graded before being processed into coco peat products of various granularity and denseness. Coco Peat is used for horticultural and agricultural applications and as industrial absorbent.

WHY COCO PEAT ?

- ◆ Coco peat is a proven natural alternative to mined peat moss.
- ◆ Coco Peat retains water 8-9 times of its weight
- ◆ Coco Peat has the ability to store and release nutrients to plants for extended periods
- ◆ Coco Peat holds water rather than shedding it like traditional peat does.
- ◆ Coco Peat has good oxygenation properties that are important for healthy root development.
- ◆ Coco Peat pH is between 5 to 7 and hence it finds good for alkaline garden soils.
- ◆ Coco Peat is very slow to disintegrate and hence offers long term benefits to users, whereas peat moss breaks down within two years after application.

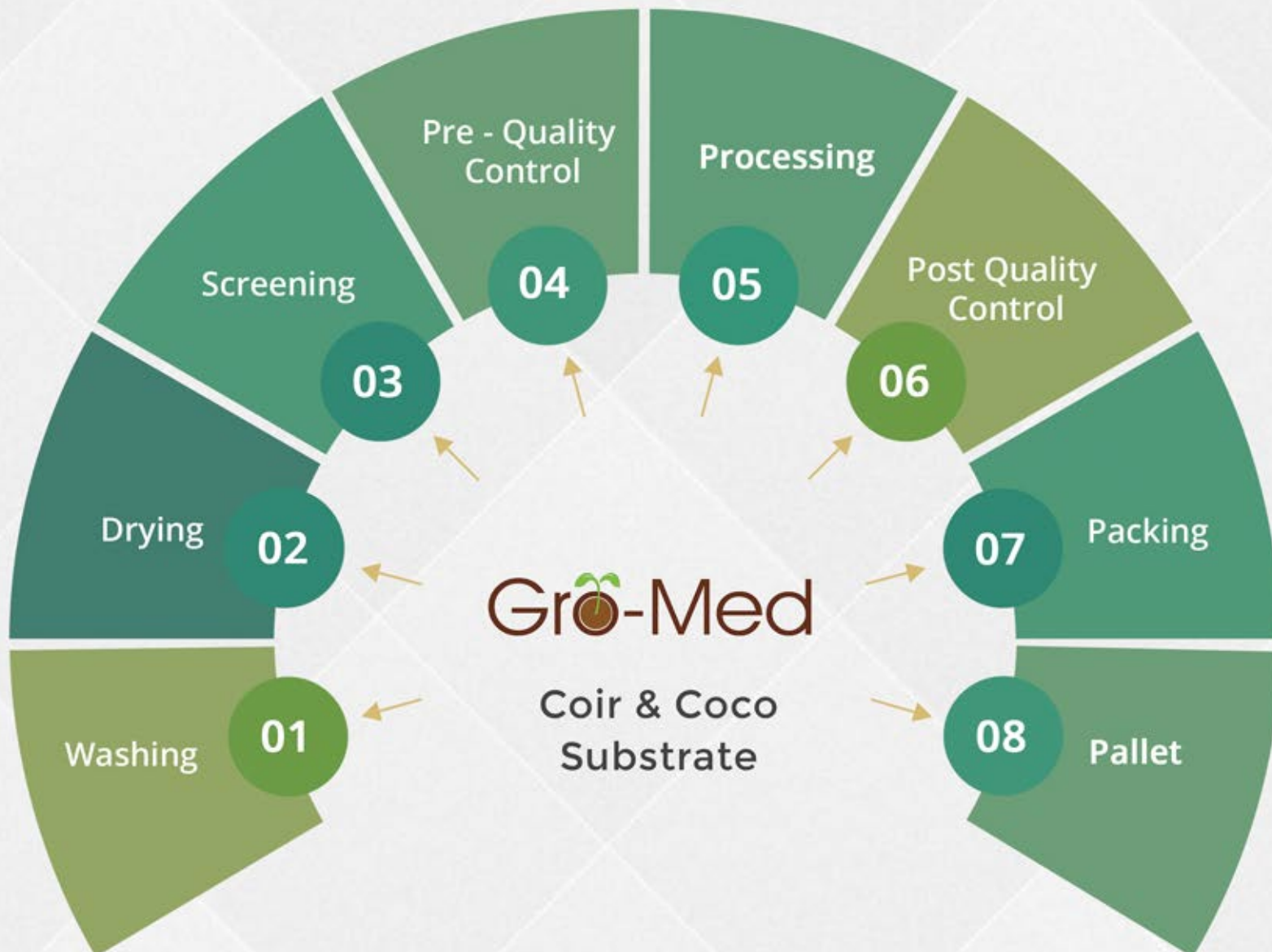


Low EC Sieved coco peat



Low EC 70% coco + 30% Husk Chips

COCO PEAT - PROCESSING CHART



PRODUCT PROFILE

COCO SUBSTRATES

COCO PEAT FOR HORTICULTURE

- ◆ Gro-Med Blocks
- ◆ Gro-Med Bricks
- ◆ Gro-Med Growbags
- ◆ Gro-Med Bales
- ◆ Gro-Med Buffered Bales
- ◆ Gro-Med Discs

COCO PEAT FOR ABSORBANT

- ◆ Kleanz Blocks

COIR PRODUCTS

- ◆ Coir Fiber Bales
- ◆ Coir Pots
- ◆ Coir Poles
- ◆ Coir Geo Textiles
- ◆ Coir Logs

FEATURES OF GRO-MED COCO PEAT

Gro-Med Substrates are used for professional farming to grow crops in various conditions in high tech glass houses, traditional poly tech tunnels, etc.

Gro-Med products are also suitable for home gardening, small-scale growers (Hobby Market) market segment viz., terrace gardening and balcony gardening.

THE SECRET OF OUR SUSTAINED LEADERSHIP AND SUCCESS OVER THE YEARS IS DUE TO OUR COCO PEAT THAT ENJOYS ENHANCED FEATURES:

- ◆ Less water consumption due to high water absorption efficiency
- ◆ Healthy roots due to enhanced air porosity
- ◆ Bio - Availability of balanced nutrients
- ◆ Aged coco substrate with balanced cations
- ◆ Less in weight when compared to regular soil
- ◆ Enhances physical stability of the plant
- ◆ Low salinity, Eco-friendly and Bio-degradable

GRO-MED COCO BLOCKS

Gro-Med Blocks are available in customized formulations suiting to different Re-Hydration Capacity (Water absorption) and Air Fill Porosity depends on different types of plants requirement.

Suitable for growing vegetables and flowers in Pots, Grow Bags, Planter Bags and Vertical Growing systems.



PARAMETERS/ GRADE	STANDARD	FINE	COARSE	FIBER MIX	HUSK CHIPS
EC	< 0.6 dS/m	< 0.6 dS/m	< 0.6 dS/m	< 0.6 dS/m	< 1dS/m
Ph	5.5 to 6.5	5.5 to 6.5	5.5 to 6.5	5.5 to 6.5	5.5 to 6.5
Water Absorption	15 Litre / Kg Min	15 Litre / Kg Min	15 Litre / Kg Min	13 Litre / Kg Min	12 Litre / Kg Min
Air Filled Porosity (%)	20.6	12.8	36.4	65.8	--
Water Holding Capacity (%)	58.4	67.2	53.1	23	--
Particle Size in mm	< 8	< 6	8 to 12	25 Unsieved	10 / 12 / 16
Dimension in CM	30 x 30 x 12	30 x 30 x 12	30 x 30 x 12	30 x 30 x 12	30 x 30 x 12
Weight / Piece	4.8 to 5.0 Kgs	4.8 to 5.0 Kgs	4.8 to 5.0 Kgs	4.8 to 5.0 Kgs	4.3 to 4.5 Kgs
Compression Ratio	5:1	5:1	5:1	5:1	5:1

GRO-MED COCO BRICKS

Gro-Med Bricks are available in customized formulations suiting to different Re-Hydration Capacity (Water absorption) and Air Fill Porosity depends on different types of plants requirement.

Suitable for growing vegetables and flowers in Pots, Grow Bags, Planter Bags and Vertical Growing systems.



Parameters	Gro-Med Brick	Gro-Med Brick
GRADE	Fine / Coarse	Husk Chips Mix
EC	< 0.6 dS/m	< 1dS/m
Ph	5.5 to 6.5	5.5 to 6.5
Water Absorption	9 L / Brick	9 L / Brick
Dimension in CM	20 x 10 x 5	20 x 10 x 5
Weight / Piece	650 Grams	650 Grams
Compression ratio	9:1	9:1

GRO-MED BALES

Gro-Med Bales are available in customized formulations suiting to different Re-Hydration Capacity and Air Fill Porosity depends on different types of plants requirement. Available in 50L, 200L, 250L and 300L packing.

Bale Dimensions (cm)	80x40x33
Bale Weight (Kgs approx)	25
Compression Ratio	2:1
EC - Electrical Conductivity	< 0.7 mS/cm
pH	5-7
Particle Size	< 8 mm
Water Absorption	300 L
Moisture	15%
Packing	Individually customized poly Bags



Suitable for growing Vegetables, Greens, Flowers in Pots, Grow Bags, Planter bags and Vertical Growing Systems. Gro-Med Coco Is 100% Organic and Free from Chemical Additives

GRO-MED GROW BAGS

Gro-Med Grow bags are made with coarse/fine grade coco peat for growing vegetables and flowers in Green House or Poly House Tunnels. Due to long life of the Gro-Med Grow bags, it can be reused for multiple harvest. This eliminates the need to replace growing media after every crop, provided if the medium is free from any contamination/disease.

Gro-Med Grow bags are available in customized formulations (with Husk Chips and Fiber mix) suiting to different Re-Hydration Capacity and Air Fill Porosity according to crop requirement.

Suitable for growing Tomatoes, Strawberries, Cucumbers, Egg Plant, Paprika, Pepper, Flowers, etc.



SPECIFICATION : GRO-MED GROW BAGS

PARAMETERS	GRO-MED GROW BAGS
GRADE	Fine / Coarse
EC	< 0.6 dS/m
PH	5.5 to 6.5

PACKING	GRO-MED GROW BAGS
PACKING	UV Treated Bags wit 2 Years Warranty
NO. OF PALLETS	18 to 20
LOADABILITY	17 to 20 MT

Can be customized with mix of coco-chips and fiber as per customer needs.

GROW BAGS EXPANDED SIZE (CM) L X W X H	UNITS PER PALLET	No. of Pallets Per 40' HC Container	No. of Units Per 40' HC Container
100 X 40 X 10	245	20	4900
100 X 30 X 16	170	20	3400
100 X 18 X 12	463	20	9260
100 X 20 X 15	325	20	6500
100 X 20 X 12	415	20	8300
100 X 18 X 16	370	20	7400
100 X 15 X 12	500	20	10000
90 X 15 X 12	550	22	12100
90 X 15 X 10	575	22	12650
90 X 20 X 15	375	20	7500
90 X 20 X 10	525	20	10500
75 X 20 X 15	450	20	9000
75 X 20 X 10	600	20	12000
50 X 20 X 10	1000	20	20000
50 X 20 X 15	625	20	12500

SPECIFICATION : GRO-MED OPEN TOP GROW BAGS



GRO-MED OPEN TOP GROW BAGS

Expanded Size in Cms	24 x 18 x 21
Packing	UV Treated Bags with 2 Years Warranty. Inner Black and Outer White Color
Pieces per Pallet	950
No. of Pallets	20
Loadability	18 to 19 MT

PARAMETERS	GRO-MED GROW BAGS
GRADE	Fine / Coarse
EC	< 0.6 dS/m
PH	5.5 to 6.5
WATER EXPANSION	10 litres

Can be customized with mix of coco-chips and fiber as per customer needs.

APPLICATION : GRO-MED GROW BAGS

For growing Tomatoes, Strawberries, Cucumbers, Egg Plant, Paprika, Pepper, Flowers, etc.

DIMENSIONS	WATER ABSORPTION VOLUME	PLANTING SPECIFICATIONS
FOR TOMATO CULTIVATION		
100 x 15 x 10cm	15 L	5 plants (most popular)
100 x 20 x 8cm	16 L	6 plants
110 x 15 x 10cm	16.5 L	5 to 6 plants
120 x 15 x 10cm	18 L	6 plants
FOR CUCUMBER CULTIVATION		
90 x 15 x 10cm	13.5 L	4 plants
100 x 15 x 10cm	15 L	4 plants
100 x 20 x 8cm	16 L	4 to 6 plants
DIMENSIONS	WATER ABSORPTION VOLUME	PLANTING SPECIFICATIONS
FOR PEPPER CULTIVATION		
100 x 12 x 6cm	7.2 L	4 plants
100 x 15 x 10cm	15 L	5 plants
100 x 20 x 8cm	16 L	5 plants
90 x 15 x 10cm	13.5 L	5 plants
FOR STRAWBERRY CULTIVATION		
100 x 15 x 10cm	15 L	10 plants
100 x 20 x 10cm	20 L	15 plants
100 x 22 x 14cm	30.8 L	19 plants
100 x 12 x 12cm	14.4 L	10 plants

GRO-MED BUFF+

Coco Peat is normally washed to remove excessive salts. With traditional method of washing, coco peat still will have unwanted salts, leading to nutritional imbalances especially due to calcium and magnesium imbalances.

Hence, Normal Washed Coco Peat still will have negative charge which can hold certain nutrients and keep them from the plant, it holds expensive fertilizers, burn plants with excessive unwanted salts which will affect the plant health and reduce overall yields.

To overcome the nutritional imbalances, coco peat is buffered and triple washed to remove elements soluble in water, removes elements which are naturally bound to the cation exchange complex.

Buffering is done using calcium nitrate for an extended period for the cation exchange saturation. The absorbed calcium releases the residual potassium and sodium in the complex, these are then washed away leaving the clean coco peat for healthier plants. Thus we call it Gro-Med Buff+, "The perfect growing medium for professional growers to grow your profits".

Gro-Med Buff+ comes in 50 L Bags, 200L Bags and also in 5KG Blocks

GRO-MED BUFF+

MICRO NUTRIENTS	
Cations	Values
Calcium (Ca)	81mg/L
Magnesium (Mg)	7.8mg/L
Sodium (Na)	<10mg/L
Calcium / Magnesium	Ratio 10
Potassium (K) / Magnesium	Ratio 1.1
Anions	Values
Chloride (Cl)	<30mg/L

SPECIFICATIONS	
PARAMETERS	VALUES
EC (MS/CM)	<0.30
PH	6.0
AIR FILLED POROSITY	>20%
WATER HOLDING CAPACITY	>65%
WETTABILITY	<0.1 MIN
BULK DENSITY	100KG/M3

BENEFITS

- ◆ Triple washed, LIGNIN washed off and hence the coco peat is CLEAN
- ◆ Balanced pH and Cations
- ◆ With buffered coco peat, farmers can use less fertilizers and can have higher yield
- ◆ Can be directly blended with plant nutrients and prepare ready-mix by farmers

GRO-MED BUFF+

PACKING DETAILS

Loadability for 50L Bag packing	USA	Other Countries	USA	Other Countries
Packing Option	FULL PALLET		HALF PALLET	
Packed Pallet Height 96"	96 bags / Pallet	90 bags / Pallet	48 bags / Pallet	45 bags / Pallet
Pallet Size in Inches	45" x 43"	45" x 43"	45" x 43"	45" x 43"
40ft HC Container	20 Pallets	20 Pallets	40 Pallets	40 Pallets
Total Bags	1920 Bags	1800 Bags	1920 Bags	1800 Bags
Net Weight	20160 Kgs	18900 Kgs	20160 Kgs	18900 Kgs
Gross Weight	20760 Kgs	19500 Kgs	21160 Kgs	19900 Kgs

COIR POTS

Coir Pot is 100% Organic and bio degradable made out of coconut coir fiber. Coir pots are used as an alternate to plastic pots which is widely used as seed germination pots along with our Coir Disc. Coir Pot is available in various sizes and shapes used by nurseries, hobby gardeners, green houses and professional growers.

Coir Pot is also designed in square or round forms for hanging pot use.



Size	Bottom Dia in CM	Top Dia in CM	Height CM
Small	3.5	6	5
Medium	4	10	8
Large	8	12	10
Extra Large	11	15	11
Jumbo	15	20	16

GRO-MED COCO DISC

Gro-Med Disc is a compressed coco peat in disc form used for seed germination and ornamental plant cutting propagation. Gro-Med Disc is available in various sizes with or without bottom sealed bio-degradable net.

Gro-Med Disc promotes more root development and minimal transplanting shock with low water logging condition. Gro-Med Disc has optimum water and air ratio suitable to grow vegetables and flowers.



Dia (mm)	30	40	60	100
Thickness (cm)	5	13	10	250
Weight(in Gms)	3	8	20	80
Expansion Volume	30ml	70-80ml	180-200ml	750-800ml

COIR STICK / POLE

Coir Stick is a pole aid used to grow climbers in pots or on the ground. Coir Stick provides a clean organic surface for the climbing roots and helps to maintain optimum water retention and absorption to the roots to prevent the exposed roots from drying.

Widely used in plant nurseries , horticulture farms and as indoor & outdoor horticulture decor.



Standard Height	30 cm to 180cm	30 cm to 180cm	30 cm to 180cm	30 cm to 180cm	30 cm to 180cm	30 cm to 180cm
Diameter of Poles	20 mm to 50 mm	20 mm to 50 mm	20 mm to 50 mm	20 mm to 50 mm	20 mm to 50 mm	20 mm to 50 mm
Description	10MMFibre coverage over the PVC and 25cm Height Fibre covered	10MMFibre coverage over the PVC and 55cm Height Fibre covered	10MMFibre coverage over the PVC and 75cm Height Fibre covered	10MMFibre coverage over the PVC and 90cm Height Fibre covered	10MMFibre coverage over the PVC and 120cm Height Fibre covered	10MMFibre coverage over the PVC and 150cm Height Fibre covered

COIR ANTI-WEED MAT

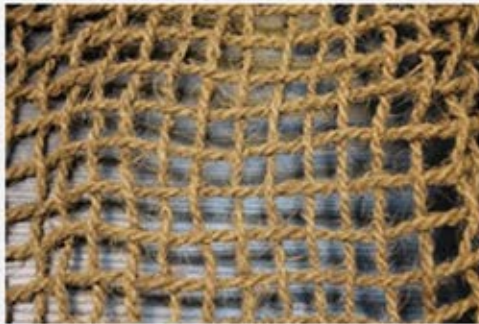
Coir anti-weed mat or tree mat is a natural coir based mat used to cover up the surface of the soil around the plant, primarily to avoid weed growth and to avoid direct sunlight to the roots. This mat retains water and prevents the top soil from drying up. Over a period of time, the mat becomes a part of the soil, thereby strengthening the roots, and providing organic matter to be retained by the soil for mineral absorption.



Raw Material	Coir
Size in Diameter	15cm, 20cm, 25cm, 30cm, 35cm, 40cm, 45cm, 50cm, 60cm and 90cm
Packaging	Carton boxes

COIR GEO-TEXTILES

Coir Geo Tex is a geo-net woven out of Coir Fiber. They have the right strength and durability to protect the slopes from soil erosion, while allowing vegetation to flourish. They can dissipate the energy of flowing water, thereby prevent soil erosion. They absorb the excess solar radiation, and protect the plants. Coir Geo Tex also finds application in road laying.



Size – 400, 600 and 800 GSM

	400	700	900
Mass/Unit Area, g/m ² Min	20.0 X 16.75	7.50 X 7.30	4.2 X 5.1
Length	50 m or as required		
Width ,m ,min	1m or as required		
Thickness at 20 kPa,	6.5 mm Min		
Color	Brown & Natural		
Material	Woven matting of coir made from high strength coir fiber		

COIR LOGS

Coir Logs are long logs made out of Coir Geo Tex and Coir Fibers. Their weight and volume enable their application as river bed protectors. When laid out along river banks, they have the ability to stop the soil from slopes to flow down into the water. They also control floods, and protect the flora and fauna on the riversides during floods



SIZING		LOADABILITY
DIAMETERS	LENGTHS	
12" (30cm)	3 or 6 meter	30 cm. diameter x 3 meters length - Appx. 250 pieces per 40' H.C. Container
16" (40 cm)	3 or 6 meter	30 cm. diameter x 3 meters length - Appx. 250 pieces per 40' H.C. Container
20" (50 cm)	3 or 6 meter	50 cm. diameter x 3 meters length - Appx. 80 pieces per 40' H.C. Container

KLEANZ - COCO BLOCKS

- ◆ Kleanz is an all-natural product produced from coconut husk which is free from Dioxin and best suitable as animal bedding absorbent free from odour, dust-free, provides warmth and adds comfort, absolutely clean and safe for all animals.
- ◆ Kleanz is easy to store and lasts longer due to its high absorption ratio three times more than the traditional absorbents, builds healthier and more productive environment at most economical cost and increase profits of animal farms, pet-shops and animal breeders

Parameters/ Grade	Standard
Water Absorption Min	15 Litre / Kg
Air Filled Porosity (%)	20.6
Water Holding Capacity (%)	58.4
Particle Size in mm	< 8
Dimension in CM	30 x 30 x 12
Weight / Piece	4.8 to 5.0 Kgs
Compression Ratio	5:1



MEMBERSHIPS



America Hort
The Consolidation of
ANLA and OFA



Coconut Development
Authority, Sri Lanka

CERTIFICATIONS



ISO Certified 9001:2008



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