

Introduces a unique innovative  
environmental friendly product

# **RENOTEX**

Natural Jute Board

Patent Pending

**Mani Almal**

**APL POLYFAB (P) LTD.**

**Kolkata**

**Jute is a GREEN BOARD**



## Jute – Natural Fiber



## WHAT IS “RENOTEX”?

IT IS A UNIQUE INNOVATIVE PRODUCT FROM  
100% JUTE NATURAL FIBRE INTERLOCKED  
WITH FABRIC & IMPREGNATED WITH  
FORMULATED NATURAL RUBBER, RESINS &  
BINDERS.

## WHAT IS UNIQUE & INNOVATIVE IN RENOTEX ?

- ✓ IT IS PRODUCED FROM 100% NATURAL JUTE FIBRE AND ENVIRONMENTAL FRIENDLY MATERIALS.
- ✓ NEW RANGE IS DEVELOPED FROM JUTE WASTE FIBRE THUS USING RECYCLED WASTE MATERIAL.
- ✓ JUTE IS A NATURAL CROP AND IS SURPLUS IN INDIA TO EXPLORE MORE DIVERSIFIED APPLICATION.
- ✓ SATISFY THE FEATURES REQUIRED FOR AN INSOLES & MOULDED APPLICATIONS IN JUST ONE PRODUCT.

## UNIQUE FEATURES OF RENOTEX JUTE

- ✓ Good Flexing – One can fold toe part in round shape or press bend to check bouncing,
- ✓ Not tearing, good tensile & stitch tear strength
- ✓ No deterioration of properties after moisture/ water absorption – faster de-absorption.
- ✓ Good adhesive bonding due to natural fiber surface,
- ✓ One side of board has jute woven fabric to give support in durability, strength and flexing,

## UNIQUE FEATURES OF RENOTEX

- ✓ Insulation & acoustic properties, recommended for cold & hot climate footwear,
- ✓ Stroblable – all ranges
- ✓ Breathable product.
- ✓ Abrasion resistance,
- ✓ High electrical resistance,
- ✓ Antistatic board in black for safety.

## And more..

- ✓ It suits all types of footwear for insoles, designer foot beds & as shank board,
- ✓ It suits most production process like stuck-on, strobel, DIP, etc
- ✓ It is produced in various thickness.
- ✓ It can be supplied in sheet of 40"x60"
- ✓ R range is impregnated in rubbers, RENO P in resins as per customer applications. Fire retardant properties can be added.

## Weakness

- It is produced in thickness from 1.4mm and above.
- Natural products normally varies in thickness & fiber colour. Care is taken to control as best.
- Natural products are better for human & environmental but expensive.



Jute insoles



Gents Insole





Flexibility – toe bounce back



Technical textile look. One side fiber,  
other side fabric





Mould Impression



Sleek footbeds from waste

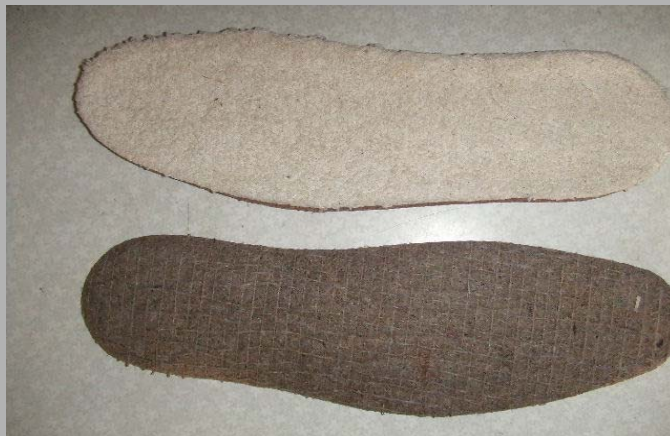




## Jute footbeds with towel



## Recycled Jute footbeds



## Jute footbeds



## Jute footbeds



## Safety Shoe



LEGS ARE SURROUNDED WITH PU SOLE, NON WOVEN  
ANTISTATIC INSOLE, SYNTHETIC STIFFNERS  
AND LININGS...ALL ARE PETROLEUM BASE



RENOTEX jute natural is breathable with  
insulation properties – strobel in safety upper..



# CENTRAL LEATHER RESEARCH INSTITUTE

FOOTWEAR TESTING LABORATORY  
SHOE DESIGN AND DEVELOPMENT CENTRE  
ADYAR, CHENNAI - 600 020, INDIA

## TEST REPORT

TEST/1799/09-10

Pg. (1) of (1)  
Dt: 31.12.2009

M/S. APL POLYFAB PVT LTD.  
5, DR. RAJENDRA PRASAD SARANI (CLIVE ROW),  
KOLKATA - 700 001,  
Tel : 22200373, 22209574

Fax : 033 2230 5125  
E-mail : polyfab@vsnl.com

Dear Sir,

With reference to your letter dated 26<sup>th</sup> December, we give below the test report for one sample of **jute insole board** submitted for **physical testing**.

Identification : RENOTEX- R JUTE BOARD, ART NO: JNR 5210 (N), BATCH NO 21-12-09,  
THICKNESS 2.0 mm

Conditioning : Test conducted at 20°C and 65 % RH

S.N	PROPERTY	RESULT	CLRI RECOMMENDATIONS (MINIMUM)			TEST METHOD
			A	B	C	
1.	Wet tensile strength, N/mm <sup>2</sup>	10.0	7.0	6.0	4.0	SATRA TM 2: 1995
	Direction 1	4.1				
2.	Flexing index	3.4	3.7	3.2	2.7	SATRA TM 3: 1999
	Direction 1	3.2				
3.	Water absorption, %	59.2	Min.35			EN 12746 : 2000
	Water desorption, %	100	Min.40			
4.	Abrasion resistance, 400 cycles	No surface tearing	No surface tearing before 400 cycles			BS EN ISO 20344:2004 - 7.3

A: Industrial footwear, B: Fashion and comfort footwear, C: Light use footwear

All the tested properties of this jute insole sample are found to be good.

Yours faithfully,

*R. Rajaraman*  
Technical Manager  
CLRI Quality Assurance Scheme

Note : 1. This test report is not meant for Publicity / Advt.  
2. This test report is not meant to be produced before Customs / Govt. Officials.



# CENTRAL LEATHER RESEARCH INSTITUTE

FOOTWEAR TESTING LABORATORY  
SHOE DESIGN AND DEVELOPMENT CENTRE  
ADYAR, CHENNAI - 600 020, INDIA

## TEST REPORT

TEST/1792/09-10

Pg. (1) of (1)  
Dt: 31.12.2009

M/S. APL POLYFAB PVT LTD.  
5, DR. RAJENDRA PRASAD SARANI (CLIVE ROW),  
KOLKATA - 700 001,  
Tel : 22200373, 22209574

Fax : 033 2230 5125  
E-mail : polyfab@vsnl.com

Dear Sir,

With reference to your letter dated 22<sup>nd</sup> December, we give below the test report for one sample of **jute insole board** submitted for **electrical resistance test**.

Identification : RENOTEX JUTE BOARD, ARTICLE NO: JNR 62105530, BATCH NO 21/12/09,  
THICKNESS 2.0 mm, BLACK COLOUR *SS20*

Conditioning : Test conducted at 20°C and 65 % RH

CLAUSE No	PROPERTY	RESULT	BS EN ISO 20345 : 2004	TEST METHOD
6.2.2.2	Electrical resistance - Anti static			
	Before dry conditioning			
	Place 1	4.4 MQ - 5.9 MQ	Not less than 100 KΩ and not greater than 1000 MQ	BS EN ISO 20344: 2004 5.10
	Place 2	3.9 MQ - 6.1 MQ		
After dry conditioning	Place 1	305 MQ - 653 MQ		
	Place 2	48 MQ - 528 MQ		

Generally this test has to be conducted on whole shoe.

Electrical resistance property (anti static) of this jute insole board sample is found to be good.

Yours faithfully,

*R. Rajaraman*  
Technical Manager  
CLRI Quality Assurance Scheme

Note : 1. This test report is not meant for Publicity / Advt.  
2. This test report is not meant to be produced before Customs / Govt. Officials.  
3. This institute shall be indemnified against any dispute arising out of issue of this test report.  
4. Test conducted on the submitted sample and this institute is not responsible for sampling.

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Helmet Inner Cap



Helmet EPS cup





## Global warming is now Global warning

In general shoes / Slippers, Dresses, curtain, helmet, chairs and furniture etc are made from synthetic material which is cheap, light and may protect your body from outer force but adverse for climate and human life. Natural product absorb heat and cold thus help in neutralisation.

Even SAFETY shoes are also produced with PU soles, synthetic lining, insoles & stiffeners, all are from petroleum / synthetic base OR hazardous base materials. Natural or composite materials may be explored for better comfort & environmental friendly.

**USE  
NATURAL or  
COMPOSITES TO  
SAVE ENVIRONMENT  
AND HUMAN LIFE  
FROM  
NATURAL CALAMATIES**



