

## PRE-FEASIBILITY REPORT / STUDY PROFORMA

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### Introduction of Technology/Process/Product:

#### **Name of Technology**

Novelty leather from the internal membranes of cow and buffalo stomachs for hand bags and handles of tennis & hockey sticks

#### **Summary:**

Novelty leather has been produced from the internal membranes of cow & buffalo stomachs for novelty leather items. The leather has a nice grip.

#### **Project brief (*Local/International perspective*)**

The internal membrane of cow and buffalo stomach is a by-product of slaughter house. It is either incorporated into poultry feed or thrown away as solid waste which creates pollutions. Efforts have been made to utilize these membranes into exotic leather for fancy hand bags, to cover handles of tennis and hockey sticks. The leather produced is replaces to polymeric and textile materials which are generally used for covering handles of tennis and hockey sticks. The leather has a nice grip due to villis (the projections on grain) and has excellent sweat resistance due to its washable characteristics.

### Main Parameters of Technology/Process/Product:

#### **Main Feature**

Internal membrane is; a by-product of bovine stomach was converted into value added leather with unique grain to fabricate novelty leather items.

#### **Input (*Raw materials with specifications*)**

Internal membrane of bovine stomach (cow & buffalo). Different types of locally available chemicals for leather manufacturing.

**Output (Products, byproducts with specifications)**

Novelty leather goods e.g. Ladies Hand bags & Purses, handles of tennis & hockey sticks and other leather goods items.

**Applications/Uses**

Novelty hand bags, covering handles of tennis and hockey sticks

**Trial Results**

Satisfactory & appealing

**Technical data (Proposed capacity, Production time per batch, Packing size)**

300 membranes from raw to finish in seven days per batch, packing size 36"/24"/20" per cotton, 6 cottons required per batch

**Production Process**

Production processes divide into 3 steps.

1. Raw to Wet Blue
2. Wet Blue to Dye Crust.
3. Dye Crust to Finish

**Flow diagrams**

Please see Annexure K

**Equipment layout diagrams**

Please see Annexure L

**Machinery required with specifications**

<b>Machines Required</b>	<b>Qty</b>	<b>Approximate Cost: (Rs. In Million)</b>
• Soaking paddles 3000mm	02 No.	0.2
• Tanning Drum 8'x 8'	01 No.	0.3
• Dyeing Drum 8'x 8'	01 No.	0.3
• Vibrating Staking Machine 3000mm	01 No.	5.5
• Toggle drier unit 20 frames	01 No.	1.0
• Spray Plant with 6-8 spray guns 3400mm	01 No.	8.0
• Hydraulic press 2000mm	01 No.	7.0
• Measuring Machine 2400mm	01 No.	3.0
• Industrial Geyser 500 – 1000 gallons	01 No.	0.05
<b>Total</b>		<b>25.35</b>

## Standards specifications & test methods

S. No.	Tests	Test Method
1.	Maximum thickness achieved by leather	DIN 53326
2.	Flexing Endurance	SATRA-SMT-101
3.	Rub fastness (dry) 1000 cycles Rub fastness (wet) 200 cycles	IUF 132 IUF 131
4.	Tensile Strength (lateral) Tensile Strength (longitudinal)	IUP6
5.	Elongation at break (lateral) Elongation at break (longitudinal)	IUP6
6.	pH of leather	SLC 13
7.	pH difference value	SLC 13
8.	Shrinkage Temperature	IUP 16

## Quality control equipment with specifications

Ordinary thermometer (0-100°C) and pH meter (0-14), Thickness gauge, Flexometer, Rub fastness tester, Tensile Strength tester & Shrinkage temperature tester.

## Environmental impact

The internal membranes, a solid waste from slaughter house have been converted into novelty leather. The tannery effluent in course of leather processing is required to treat for better environment.

## Availability of technical support

Available

## Available Brochures/Pamphlets

Available

## Status of registration/Patent/Trade Mark

Patents obtained  
135735 & 135818

### **Estimation of Fixed Capital Investment (PKR):**

Land Area 10,000 sq.yards	80.00 million (vary from land to land)
Building	Double storey.
Furniture & Fixture (Office/Factory)	0.4 million
Plant & Machinery	25.35
Technology Transfer Fee	0.4 million
Total Fixed Cost of the Project (Except Building & Land price)	25.75 millions
Add: Working Capital	1.0 million
Total Project Cost: (Except Building & Land price)	26.75 millions

### **Marketing Aspects:**

**Total industry and annual growth** Cow & buffalo are slaughtered from which the raw material i.e. bovine membranes are obtained. They may be converted into fancy leather for value added items

**Current demand** Novelty leathers are much in demand

**Local production facilities** Available

**Imports** -----

**Major users** To cover handles of tennis & hockey sticks, novelty hand bags & novelty items suppliers

#### **Marketing strategy**

- Hold regional exhibition & seminars
  - Publicity through electronic & print media
- Through exhibitions, publicity print and electronic media , contact with leather article manufacturer and suppliers

### **Detail of Cost:**

Direct Production Cost (per sq.ft)	Rs. 75/-
Raw materials cost per unit (per sq.ft)	Rs. 14
Direct wages cost per unit (per sq.ft)	Rs. 8/-
Production Overheads cost per unit (per sq.ft)	Rs. 1/-
Admin & Selling Expenses	Rs. 25,000
Salaries & benefits per month	Rs. 15,000
Utilities charges per month	Rs. 20,000
Communication expenses per month	Rs. 10,000

Other expenses per month	Rs. 2,500
Publicity and advertisement expenses per month	Rs. 10,000