Pre-feasibility Study

WATER AND FIRE PROOF CLOTH MANUFACTURING UNIT

December 2020

"The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, andrevenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA's website and consult financial experts to stay current with market conditions"

Small and Medium Enterprises Development Authority
Ministry of Industries and Production
Government of Pakistan

Table of Contents

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Document Control

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2 EXECUTIVE SUMMARY

Water and fire proof cloth falls in technical textiles category, which is specially engineered to meet the requirement of water-resistant and fireproofing. Predominantly, water and fire proof cloths are made of Polychloride Vinyl (PVC) Polymer and used across a broad variety of applications, including sports, camping tents, rain protection items and fire fighters. PVC made fabrics are very durable and have superior ability to withstand abrasion and distortion.

This particular pre-feasibility study is for setting up a 'Water and Fire Proof PVC Resin Cloth Manufacturing Unit' in any major industrial city in Pakistan. The proposed unit will be equipped with latest extrusion line and coating machines to produce the high-quality PVC resin cloth that will be sold to wholesalers and retail outlets in major cities of Pakistan. Additionally, the proposed business will also operate on order manufacturing basis for sportswear, rain protection wear, firefighters uniform and camping tent manufacturers.

The business will have the capacity to produce 7.2 million meters of PVC resin cloth per annum based on 300 working days on 8 hours single shift bases. However, starting operational capacity is assumed at 50% with an annual increase of 5%, it will attain a maximum capacity utilization of 85% in 8th year of operation. This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. Entrepreneur's knowledge of the chemicals and technical textile industry, competitive pricing, and strong linkage with industrial buyers and wholesalers are key factors for the success.

Total project cost is estimated as Rs. 54.013 million with capital investment of Rs. 41.584 million and working capital Rs. 12.429 million. Based on an equity finance model, the project NPV is around Rs. 78.868 million, with an IRR of 38% and Payback Period of 3.33 years. The project will provide employment opportunities to 21 people including the Owner. The legal business status of this project is assumed to be 'Sole Proprietorship'.

3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to

identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Water and Fire Proof PVC Resin Cloth Manufacturing Unit** by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later, which form basis of any Investment Decision.

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

PVC Resin cloth is a PVC coated fabric, which is processed by using the Polyvinyl Chloride (PVC) Polymer on fabrics. It is also recognized as ‘Polyester Fabric’. This coated cloth is very durable and hold strong resistance against water and fire. Therefore it is widely used in various application related to sports, outdoor adventures, firefighting & safety called and protective for rain. The water and fire proof cloth manufacturing is a major sub sector of technical textiles and hold significance economic value in terms of its uses and applications.

This particular pre-feasibility study is based on an automated PVC Coating and Laminating Machine imported from China. Production line will mainly comprise of

Winding, Coating, Dry Oven, Traction and Cooling and Electronic Control components. For the purpose of making fabric, melting of PVC Resin will be done through extrusion process and afterwards melted resins will be applied as coating on the fabric as per desired thickness.

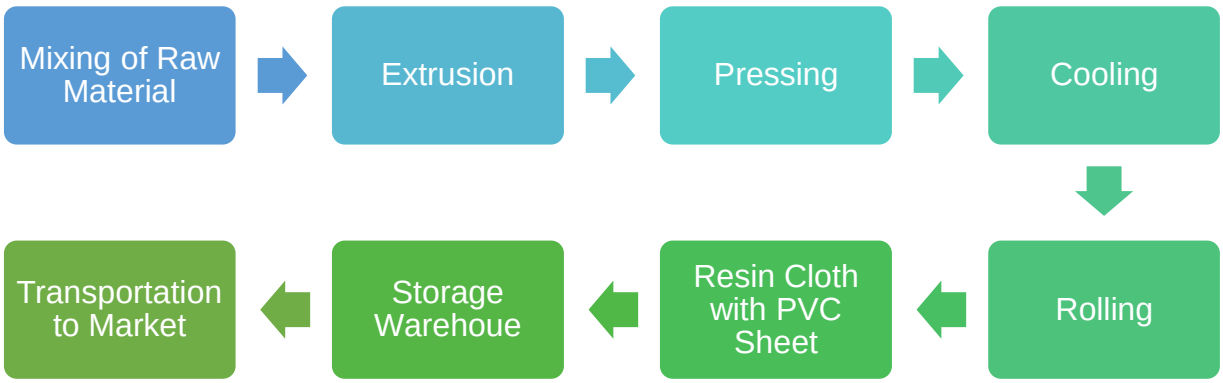
According to the proposed business model, the unit will procure the fabric sheets and PVC Resin granules from the local market and after treating the fabric with PVC coat it will become water and fire resistant. The produced water and fire proof fabric will be sold to wholesalers and retailers. Additionally, proposed unit will also produce the fabric on order manufacturing basis from the industrial buyers i.e. manufacturers of water & fire proof sportswear, rain protective wear manufacturers, firefighters uniform makers and camping tent manufacturers etc.

The ideal location for the proposed project is any major industrial city across Pakistan, however, it can also be established in other areas with availability of required infrastructural support, skilled labour and easy access to markets. Financial analysis shows the unit shall be profitable from the very first year of operation. The proposed project will provide direct employment to 21 people and the legal business status of this project is assumed to be 'Sole Proprietorship.

5.1 Production Process Flow

The key steps involved in the manufacturing of Water and Fire Proof PVC Coated Cloth Manufacturing are Mixing, Warming, Melting, Pressing, Cooling, Inspecting and Rolling operations. The production process flow diagram is as follows.

Figure 1: Production Process Flow



5.2 Installed and Operational Capacity

The proposed unit has an installed capacity of producing 7.20 million meter of PVC Coated Water and Fire Proof Cloth per annum. The unit is proposed to operate on 8 hours single shift basis with 300 operational days in a years.

However, the initial operating capacity of the project will be 50% (i.e. 3.60 million meter fabric) with an annual increase of 5% and will achieve a maximum operational capacity of 85% (i.e. 6.12 million meter fabric) in 8th year.

6 CRITICAL FACTORS

Following are the factors critical for the success of this business venture;

- ⇒ Background knowledge and related experience of the entrepreneur in the field of technical textile and chemical industry.
- ⇒ Selection of quality PVC granules and fabric on the basis of best analysis of cost and revenues; cost efficiency through better management.
- ⇒ Selection of appropriate plant and machinery.
- ⇒ Exceed customer expectations by offering high quality products at reasonable prices with quick turnaround times.
- ⇒ Business location is the key to success, in order to have greater reach to its customers to meet its revenue targets.
- ⇒ Time management is very important in completing orders. Delay in delivery can cost as high as losing a customer.
- ⇒ Continuous flow of orders through aggressive marketing and establishing good working relations for repeat orders.
- ⇒ Induction of trained human resources for the handling of business operations especially in production and distribution.
- ⇒ Employ careful financial and accounting analysis to ensure efficiency and proper controls.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Location selection is critical to the success of the project. It is important to find a location preferably in an industrial cluster where utilities especially electricity and other infrastructure are conveniently available. Presently, Karachi, Lahore, Gujranwala, Faisalabad, Multan, Rawalpindi and Peshawar can be considered as these cities have adequate availability of skilled labor, raw material, and infrastructure. Additionally, majority of associated industries with PVC coated water and fire proof cloth manufacturing plant are also located in these cities.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

Potential target customers for the produced water and fire proof cloth will mainly comprise of water & fire proof sportswear manufacturers, rain protective wear and items manufacturers, firefighters uniform makers and camping tent manufacturers etc.

Since, majority of the target customer belongs to the business segments, therefore, above identified metropolitan cities will be the potential markets for the produced PVC coated fire and water proof cloth. The business buyers will be targeted through order manufacturing basis as well as through wholesalers.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyse the commercial viability of Water and Fire Proof PVC Resin Cloth Manufacturing Unit. Various cost and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are attached as annexures.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 327.750 million in the year one. The capacity utilization during year one is worked out at 50% with 5% increase in subsequent years up to the maximum capacity utilization of 85%.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

Table 1: Project Economics

Description	Details
Internal Rate of Return (IRR)	38%
Payback Period (Yrs.)	3.33
Net Present Value (Rs.)	78,867,758

Calculation of break-even analysis is as follows:

Table 2: Breakeven (100% Equity Based)

Break-Even Analysis	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10

Break-Even Revenue	117,940,565	129,855,639	141,554,492	154,547,810	168,609,756	184,210,780	201,220,989	219,592,435	235,139,247	252,053,690
Break-Even Units	1,241,480	1,301,811	1,351,517	1,405,307	1,460,165	1,519,305	1,580,571	1,642,739	1,675,279	1,710,274
Margin of Safety	64%	67%	69%	70%	71%	72%	72%	73%	73%	72%

However, for the purposes of further explanation the Project Economics based on Debt:Equity (i.e. 50:50) Model has also been computed.

Based on Debt:Equity model the Internal Rate of Return, Payback Period and Net Present Value of the proposed project are provide in the table below.

Table 3: Project Economics Based on Debt (50%):Equity (50%)

Description	Details
Internal Rate of Return (IRR)	36%
Payback Period (Yrs.)	3.59
Net Present Value (Rs.)	93,319,699

The financial assumptions for Debt: Equity are as follows:

Table 4: Financial Assumptions for Debt:Equity Model

Description	Details
Debt	50%
Equity	50%
Interest Rate on Debt	12%
Debt Tenure	5
Debt Payment / Year	2

The projected Income Statement, Cash Flow Statement and Balance Sheet attached as annexures are based on 100% Equity Based Business Model.

9.2 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

Table 5: Project Cost

Description	Amount Rs.
Capital Cost	
Land	8,000,000
Building / Infrastructure	9,982,393
Machinery & Equipment	16,991,725
Furniture & Fixtures	1,749,000
Office Vehicles	2,525,000
Office Computer Equipment	504,000
Wapda Security	201,000
Pre-Operating Costs	1,430,000
Licensing & Legal Fee	201,000
Total Capital Cost	**41,584,118**
Equipment Spare Part Inventory	718,750
Raw Material Inventory	10,292,500
Cash	1,417,309
Total Working Capital	**12,428,559**
Total Project Cost	**54,012,677**

9.3 Land and Infrastructure Requirement

Approximately 1 Kanal of land would be required for the establishment of the proposed unit, it is recommended that required land should be procured in the industrial estates of any major industrial city. The cost of land is estimated at the rate of Rs. 8 million per kanal.

The infrastructural requirements of the project mainly comprise of the construction of Production Hall, Warehouse, Store, Management Office and Open Space. The cost of construction of building for the proposed unit is provided in the table below.

Table 6: Infrastructure Requirement

Description	Estimated Area (Sq. ft.)	Unit Cost (Rs.)	Total Cost (Rs.)
Management Building	400	2,500	1,000,000

Production Hall	1,200	2,000	2,400,000
FG And RM Store	1,500	2,500	3,750,000
Cafeteria	125	2,500	312,500
Guard And Labour Room	450	1,500	675,000
Washroom	108	2,500	270,000
Testing Room	100	2,500	250,000
Electric Room	100	2,500	250,000
Pavement / Driveway	225	750	168,750
Open Area	292	50	14,600
Design Fee			454,543
Boundary Wall			437,000
Total Construction Cost			**9,982,393**
Cost of Land			8,000,000
Total Cost			**17,982,383**

9.4 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below.

Table 7: Machinery & Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
PVC Fabric Coating Machine	1	12,065,160	12,065,160
Generator	1	2,075,000	2,075,000
Transformer	1	1,050,000	1,050,000
Machinery Installation Supervisory Charges			160,050
Boarding Lodging and Other Costs Of Supervisor From Plant Supplier			350,000
Installation			1,206,516
Electric Room Equipment	1	85,000	85,000
Total			**16,991,726**

9.5 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below.

Table 8: Furniture & Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Table & Chairs	15	23,667	355,000
Visitor Chairs	20	6,250	125,000
Sofas	4	12,000	48,000
Cupboard / Racks	8	10,625	85,000
Miscellaneous Furniture		150,000	150,000
Fans	20	3,800	76,000
Industry Fans	2	35,000	70,000
Exhaust Fans	5	2,200	11,000
Led Bulbs (18 Watts)	34	1,000	34,000
Air Conditioners (1 Ton Split)	3	65,000	195,000
Interior / Renovation		600,000	600,000
Total			**1,749,000**

9.6 Office vehicles Requirement

Details of the office vehicles required for the project are given below.

Table 9: Ofice Vehicles

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Mini Truck	1	2,525,000	2,525,000
Total			**2,525,000**

9.7 Office Equipment Requirement

Following office equipment will be required for the project are given below.

Table 10: Office and Computer Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Computers	5	35,000	175,000
Computer printers	2	23,000	46,000
UPS with Batteries	1	50,000	50,000
Security Equipment	1	65,000	65,000
Telephones	3	1,500	4,500
Fridge	1	51,500	51,500
Water Dispenser	3	19,000	57,000
Microwave Oven	1	13,500	13,500
LED for Office	1	41,500	41,500
Total			**504,000**

9.8 Human Resource Requirement

In order to run operations of Water and Fire Proof PVC Resin Cloth Manufacturing Unit smoothly, details of human resources required along with number of employees and monthly salary are recommended as under.

Table 11: Human Resource Requirment

Description	No. of Employees	Monthly Salary per Person (Rs.)
Owner / Manager	1	80,000
Plant Engineer	1	50,000
Accountant & Supervisor	1	30,000
Machine Operators	3	25,000
Store Staff	2	20,000
Sales Executive	2	25,000
Electrician	1	25,000
Helpers	6	18,000
Office Boys	1	20,000
Guards	2	20,000

Driver	1	25,000
Total	**21**	

9.9 Utilities and Other Cost

An essential cost to be borne by the project is the cost of electricity and gas. The electricity and gas expenses for the first year are estimated to be around Rs. 266,462 and Rs. 55,000 per month respectively. Furthermore, promotional expense being essential for marketing of rubber tiles Unit is estimated as 0.5% of revenue.

9.10 Raw Material Requirement

Main raw materials required for manufacturing of water and fire proof resin cloth are plastic (PVC) granules and fabric. Other miscellaneous raw materials include glue and chemicals which will also be used in the processing. All these materials will be procured directly from the local market. The following table provides the details for the raw material requirements for first year of operations for the proposed Water and Fire Proof PVC Resin Cloth Manufacturing Unit.

Table 12: Raw Material Requirements (Year 1)

Description	Quantity Required (Kg)	Unit Cost (Rs.)	Total Cost (Rs.)
PVC Granules (Kgs.)	345,000	216	74,520,000
Fabric (Meters)	3,450,000	50	172,500,000
Other Raw Materials (Meters)	3,450,000	5.37	18,526,500
Total			**265,546,500**

9.11 Revenue Generation

Based on the capacity utilization of 50%, sales revenue during the first year of operations is provided in the table below.

Table 13: Revenue Generation – Year 1

Description	No. of Units Produced (Meters)	Finished Goods Inventory (Meters)	Units for Sale (Meters)	Sale Price / Unit (Rs.)	Sales Revenue (Rs.)

PVC Resin Cloth	3,600,000	150,000	3,450,000	95	327,750,000

10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

10.1 Machinery Suppliers

Name of Supplier	Address	Phone / Email
Ruian Ruihua Printing Packing Machinery Co. Ltd.	Beiyu Industrial Area, Shangwang Town, Ruian City, Zhejiang Province, China.	+86 577 6516 5355 fern@rh-jx.net

11 USEFUL WEB LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries & Production	www.moip.gov.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Baluchistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jammu Kashmir	www.ajk.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security Commission of Pakistan (SECP)	www.secp.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk

Quaid-e-Azam Industrial Estate	www.qie.com.pk
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk
Pakistan Plastic Manufacturers Association	www.pakplas.com.pk
Pakistan Hosiery Manufacturers Association (PHMA)	www.phma.com.pk
Pakistan Ready Made Garments Manufacturers and Exporters Association(PRGMEA)	www.prgmea.com.pk
ALL Pakistan Textile Mills Association (APTMA)	www.aptma.com.pk

12 ANNEXURES

12.1 Income Statement

Calculations **SMEDA**

Income Statement

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	327,750,000	393,513,750	450,894,938	513,030,459	580,252,296	652,913,740	731,390,698	816,083,068	858,992,595	901,942,225
Cost of sales										
Cost of goods sold 1	74,520,000	89,472,600	102,519,270	116,646,926	131,931,048	148,451,966	166,295,148	185,551,519	195,307,790	205,073,180
Cost of goods sold 2 fabric sheets	172,500,000	207,112,500	237,313,125	270,016,031	305,395,945	343,638,811	384,942,473	429,517,404	452,101,366	474,706,434
Miscellaneous raw materials	18,526,500	22,243,883	25,487,430	28,999,722	32,799,525	36,906,808	41,342,822	46,130,169	48,555,687	50,983,471
Operation costs 1 (direct labor)	2,679,500	3,063,950	3,371,413	3,709,548	4,081,440	4,490,478	4,940,385	5,435,259	5,993,474	6,592,822
Operating costs 2 (machinery maintenance)	17,250,000	20,711,250	23,731,313	27,001,603	30,539,595	34,363,881	38,494,247	42,951,740	45,210,137	47,470,643
Operating costs 3 (direct electricity)	3,000,480	3,300,528	3,630,581	3,993,639	4,393,003	4,832,303	5,315,533	5,847,087	6,431,795	7,074,975
Direct gas	660,000	762,300	873,180	993,242	1,123,128	1,263,519	1,415,141	1,578,767	1,657,705	1,740,590
Other packing cost	690,000	828,450	949,253	1,080,064	1,221,584	1,374,555	1,539,770	1,718,070	1,808,405	1,898,826
Total cost of sales	289,826,480	347,495,461	397,875,563	452,440,775	511,485,267	575,322,321	644,285,519	718,730,014	757,066,359	795,540,941
Gross Profit	37,923,520	46,018,290	53,019,374	60,589,684	68,767,029	77,591,419	87,105,179	97,353,054	101,926,236	106,401,284
General administration & selling expenses										
Administration expense	3,720,000	4,092,000	4,501,200	4,951,320	5,446,452	5,991,097	6,590,207	7,249,228	7,974,150	8,771,565
Administration benefits expense	372,000	409,200	450,120	495,132	544,645	599,110	659,021	724,923	797,415	877,157
Electricity expense	197,064	216,770	238,447	262,292	288,521	317,373	349,110	384,021	422,423	464,666
Water expense	53,590	61,279	67,428	74,191	81,629	89,810	98,808	108,705	119,869	131,856
Travelling expense	186,000	204,600	225,060	247,566	272,323	299,555	329,510	362,461	398,708	438,578
Miscellaneous expense	20,096	22,980	25,286	27,822	30,611	33,679	37,053	40,764	44,951	49,446
Office vehicles running expense	378,750	416,625	458,288	504,116	554,528	609,981	670,979	738,077	811,884	893,073
Office expenses (stationary, entertainment, janitorial services, etc.	133,975	153,198	168,571	185,477	204,072	224,524	247,019	271,763	299,674	329,641
Promotional expense	1,638,750	1,967,569	2,254,475	2,565,152	2,901,261	3,264,569	3,656,953	4,080,415	4,294,963	4,509,711
Professional fees (legal, audit, consultants, etc.)	3,277,500	3,935,138	4,508,949	5,130,305	5,802,523	6,529,137	7,313,907	8,160,831	8,589,926	9,019,422
Depreciation expense	2,990,922	2,990,922	2,990,922	3,007,729	3,005,019	3,313,326	3,332,782	3,329,644	3,329,644	3,352,167
Amortization of pre-operating costs	286,000	286,000	286,000	286,000	286,000	-	-	-	-	-
Amortization of legal, licensing, and training costs	20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100
Communications expense (phone, fax, mail, internet, etc.)	372,000	409,200	450,120	495,132	544,645	599,110	659,021	724,923	797,415	877,157
Subtotal	13,646,747	15,185,580	16,644,965	18,252,333	19,982,328	21,891,369	23,964,470	26,195,856	27,901,123	29,734,539
Operating Income	24,276,773	30,832,710	36,374,409	42,337,351	48,784,700	55,700,050	63,140,709	71,157,198	74,025,112	76,666,745
Other income (interest on cash)	69,978	267,715	569,241	850,299	1,089,683	1,321,254	1,594,244	1,899,084	2,213,798	3,124,248
Gain / (loss) on sale of computer equipment	-	-	67,750	-	-	146,179	-	-	236,971	189,184
Gain / (loss) on sale of office vehicles	-	-	-	-	1,010,000	-	-	-	-	
Earnings Before Interest & Taxes	24,346,751	31,100,425	37,011,399	43,187,650	50,884,384	57,167,483	64,734,953	73,056,283	76,475,881	79,980,177
Tax	7,641,362	10,005,149	12,073,989	14,235,677	16,929,534	19,128,619	21,777,233	24,689,699	25,886,558	27,113,062
NET PROFIT/(LOSS) AFTER TAX	**16,705,388**	**21,095,277**	**24,937,410**	**28,951,973**	**33,954,850**	**38,038,864**	**42,957,720**	**48,366,584**	**50,589,323**	**52,867,116**

12.2 Balance Sheet

Calculations **SMEDA**

Balance Sheet

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
Current assets											
Cash & Bank	1,417,309	4,180,909	17,236,324	28,302,921	39,720,993	47,453,663	58,246,621	69,292,890	82,633,864	94,469,993	155,469,839
Accounts receivable		13,469,178	14,820,488	17,350,863	19,806,686	22,464,714	25,339,028	28,444,612	31,797,406	34,419,363	36,183,592
Finished goods inventory		12,601,151	14,534,031	16,635,912	18,912,315	21,375,504	24,038,537	26,915,322	30,020,664	31,544,432	33,147,539
Equipment spare part inventory	718,750	906,117	1,090,157	1,302,405	1,546,711	1,827,416	2,149,416	2,518,226	2,783,165	3,068,440	-
Raw material inventory	10,292,500	12,975,598	15,611,051	18,650,446	22,148,904	26,168,599	30,779,631	36,060,989	39,854,924	43,940,054	-
Total Current Assets	12,428,559	44,132,953	63,292,051	82,242,548	102,135,610	119,289,896	140,553,232	163,232,038	187,090,024	207,442,281	224,800,971
Fixed assets											
Land	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Building/Infrastructure	9,982,393	9,483,273	8,984,153	8,485,034	7,985,914	7,486,794	6,987,675	6,488,555	5,989,436	5,490,316	4,991,196
Wapda Security	201,000	201,000	201,000	201,000	201,000	201,000	201,000	201,000	201,000	201,000	201,000
Machinery & equipment	16,991,725	15,292,553	13,593,380	11,894,208	10,195,035	8,495,863	6,796,690	5,097,518	3,398,345	1,699,173	0
Furniture & fixtures	1,749,000	1,574,100	1,399,200	1,224,300	1,049,400	874,500	699,600	524,700	349,800	174,900	-
Office vehicles	2,525,000	2,020,000	1,515,000	1,010,000	505,000	4,066,538	3,253,230	2,439,923	1,626,615	813,308	-
Computer equipment	271,000	181,570	92,140	316,426	210,190	106,664	366,303	243,321	123,476	424,042	281,675
Office equipment	233,000	209,700	186,400	163,100	139,800	116,500	93,200	69,900	46,600	23,300	-
Total Fixed Assets	39,953,118	36,962,196	33,971,274	31,294,068	28,286,339	29,347,858	26,397,698	23,064,917	19,735,272	16,826,038	13,473,871
Intangible assets											
Pre-operation costs	1,430,000	1,144,000	858,000	572,000	286,000	-	-	-	-	-	-
Legal, licensing, & training costs	201,000	180,900	160,800	140,700	120,600	100,500	80,400	60,300	40,200	20,100	-
Total Intangible Assets	1,631,000	1,324,900	1,018,800	712,700	406,600	100,500	80,400	60,300	40,200	20,100	-
TOTAL ASSETS	**54,012,677**	**82,420,049**	**98,282,124**	**114,249,316**	**130,828,549**	**148,738,255**	**167,031,331**	**186,357,255**	**206,865,496**	**224,288,419**	**238,274,841**
Liabilities & Shareholders' Equity											
Current liabilities											
Accounts payable		11,701,984	14,028,916	16,094,286	18,340,411	20,781,329	23,432,164	26,309,210	29,331,257	30,987,034	30,537,506
Total Current Liabilities	-	11,701,984	14,028,916	16,094,286	18,340,411	20,781,329	23,432,164	26,309,210	29,331,257	30,987,034	30,537,506
Shareholders' equity											
Paid-up capital	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677	54,012,677
Retained earnings		16,705,388	30,240,532	44,142,354	58,475,461	73,944,249	89,586,490	106,035,368	123,521,562	139,288,708	153,724,659
Total Equity	54,012,677	70,718,065	84,253,209	98,155,030	112,488,138	127,956,925	143,599,167	160,048,045	177,534,238	193,301,385	207,737,336
TOTAL CAPITAL AND LIABILITIES	**54,012,677**	**82,420,049**	**98,282,124**	**114,249,316**	**130,828,549**	**148,738,255**	**167,031,331**	**186,357,255**	**206,865,496**	**224,288,419**	**238,274,841**

12.3 Cash Flow Statement

Calculations **SMEDA**

Cash Flow Statement

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Operating activities											
Net profit		16,705,388	21,095,277	24,937,410	28,951,973	33,954,850	38,038,864	42,957,720	48,366,584	50,589,323	52,867,116
Add: depreciation expense		2,990,922	2,990,922	2,990,922	3,007,729	3,005,019	3,313,326	3,332,782	3,329,644	3,329,644	3,352,167
amortization of pre-operating costs		286,000	286,000	286,000	286,000	286,000	-	-	-	-	-
amortization of training costs		20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100	20,100
Accounts receivable		(13,469,178)	(1,351,310)	(2,530,375)	(2,455,823)	(2,658,028)	(2,874,314)	(3,105,584)	(3,352,794)	(2,621,957)	(1,764,229)
Finished goods inventory		(12,601,151)	(1,932,879)	(2,101,881)	(2,276,403)	(2,463,188)	(2,663,033)	(2,876,785)	(3,105,342)	(1,523,768)	(1,603,108)
Equipment inventory	(718,750)	(187,367)	(184,040)	(212,248)	(244,306)	(280,705)	(321,999)	(368,810)	(264,940)	(285,274)	3,068,440
Raw material inventory	(10,292,500)	(2,683,098)	(2,635,453)	(3,039,395)	(3,498,458)	(4,019,695)	(4,611,031)	(5,281,359)	(3,793,935)	(4,085,130)	43,940,054
Accounts payable		11,701,984	2,326,931	2,065,370	2,246,125	2,440,918	2,650,834	2,877,047	3,022,047	1,655,777	(449,528)
Cash provided by operations	(11,011,250)	2,763,600	20,615,549	22,415,902	26,036,937	30,285,270	33,552,747	37,555,111	44,221,365	47,078,716	99,431,011
Issuance of shares	54,012,677	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	54,012,677	-	-	-	-	-	-	-	-	-	-
Investing activities											
Capital expenditure	(41,584,118)	-	-	(313,716)	-	(4,066,538)	(363,166)	-	-	(420,410)	-
Cash (used for) / provided by investing activities	(41,584,118)	-	-	(313,716)	-	(4,066,538)	(363,166)	-	-	(420,410)	-
NET CASH	1,417,309	2,763,600	20,615,549	22,102,185	26,036,937	26,218,732	33,189,581	37,555,111	44,221,365	46,658,306	99,431,011

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Water Expense	2% of Direct Staff Salaries
Communication Expenses	10% of Administration Expense
Promotional Expenses	0.5% of Revenue
Depreciation Method	Straight Line Depreciation
Depreciation Rate	5% on Building / Infrastructure 10% on Machinery & Equipment 33% on Office Equipment 10% on Furniture & Fixture 20% on Vehicles
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Salaries Growth Rate	10%
Gas Price Growth Rate	5%

13.2 Production Cost Assumptions

Description	Details
Maximum Operational Capacity (Meters)	7,200,000
Cost Of PVC Granules Per Kgs.	Rs. 216
Average Coverage Of Coating From Per Kgs. Of PVC (Meters)	Rs. 10
Per Unit Cost PVC	Rs. 21.60
Per Unit Cost Fabric	Rs. 50

Other Miscellaneous Cost Per Unit (Glue Etc.)	Rs. 5.37 (7.5% of Main Raw Material Cost)
Cost of Production Growth Rate	5%
Hours Operational / Day	8
Days Operational / Year	300

13.3 Revenue Assumptions

Description	Details
Sale Price Growth Rate	5%
Average Price Per Meter Year 1	Rs. 95
Capacity Utilization	50%
Capacity Utilization Growth Rate	5%
Max Capacity Utilization	85%
Finished Goods Inventory	15 Days

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