

PROJECT REPORT

OF

BRAKE LINER

MANUFACTURING UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Brake Liner Manufacturing unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **BRAKE LINER**
- 6 Name of the project / business activity proposed : **BRAKE LINER MANUFACTURING UNIT**
- 7 Cost of Project : Rs.22.36 Lakhs
- 8 Means of Finance
- Term Loan Rs.16.16 Lakhs
- Own Capital Rs.2.24 Lakhs
- Working Capital Rs.3.96 Lakhs
- 9 Debt Service Coverage Ratio : 2.87
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 36%
- 13 Employment : 10 Persons
- 14 Power Requirement : 22.00 KW
- 15 Major Raw materials : Asbestos, Phenol Resin, Carton Boxes, organic fillers
- 16 Estimated Annual Sales Turnover : 69.60 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.95
Miss Assets	1.00
Furniture & Fixtures	-
Working Capital	4.41
Total	22.36

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.24
Working Capital(Finance)	3.97
Term Loan	16.16
Total	22.36

1. INTRODUCTION



Brake linings are the consumable surfaces in brake systems, such as drum brakes and disc brakes used in transport vehicles. During braking, brake linings apply frictional forces to a cylindrical drum attached to the wheel to reduce its speed and enhance control of the vehicle. Brake linings are composed of a relatively soft but tough and heat-resistant material with a high coefficient of dynamic friction (and ideally an identical coefficient of static friction) typically mounted to a solid metal backing using high-temperature adhesives or rivets. The complete assembly (including lining and backing) is then often called a brake pad or brake shoe.

2. USES & MARKET POTENTIAL:

Brake liners are used for applying frictional forces to a cylindrical drum attached to the wheel to reduce its speed and enhance control of the vehicle. The brake shoe expands by air pressure (expander) or hydraulic pressure (wheel cylinder) to press the brake linings against the drum, producing a frictional force which reduces and controls the speed of the vehicle.

The automotive brake linings market will register a CAGR of over 8% by 2023. India brake pads, shoes and linings market is projected to cross \$ 3 billion by FY2023, on the back of rising vehicle sales and expanding automobile fleet across the country. Moreover, new government norms towards vehicle safety standards regarding braking system are further boosting demand for brake pads, shoes and linings in India. Some of the top players operating in India brake pads, shoes and linings market include ASK Automotive Pvt. Ltd., Rane Holdings Limited, Brakes India Private Limited, Bosch Limited, Makino Auto Industries Pvt. Ltd., TRW Automotive, Brembo Brake India Pvt. Ltd.

PRODUCT RAW MATERIAL

- Asbestos
- Phenol resin
- Nitrile Butyl Rubber (NBR)
- Friction Dust
- Stiffener
- Friction Adjustment Material (lubricants, organic fillers, inorganic fillers, abrasive material, metal powder, etc.)

MANUFACTURING PROCESS



3. PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 1500 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.25,000 per month.

3.2 Plant and Machinery

Machine	Quantity	Price
Mixer	1	30,000
Hydraulic Preforming Press	1	5,80,000
Hydraulic Hot Press Machine	1	5,00,000
Box Oven	1	90,000
ID Grinding Machine	1	4,10,000
Dust Collector	1	85,000
TOTAL		16,95,000

Note: Total Machinery cost shall be Rs 16.95 lakh including GST and Transportation Cost.

3.3 Power Requirement

The borrower shall require power load of 22 KW which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall also purchase DG Set.

3.4 Manpower Requirement

Manpower required for this manufacturing unit is depend on the land, type of manufacturing unit etc. For this unit around 10 people will be required.

3.5 Other Utilities

General electrical apparatus, Water, Telephone, etc.

4. FINANCIALS

<u>PROJECTED BALANCE SHEET</u>	(in Lacs)				
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
Opening balance		2.82	4.77	7.08	9.75
Add:- Own Capital	2.24				
Add:- Retained Profit	5.59	7.05	8.61	11.07	13.04
Less:- Drawings	5.00	5.10	6.30	8.40	9.90
Closing Balance	2.82	4.77	7.08	9.75	12.89
Term Loan	14.36	10.77	7.18	3.59	-
Working Capital Limit	3.96	3.96	3.96	3.96	3.96
Sundry Creditors	0.81	0.91	1.02	1.14	1.27
Provisions & Other Liability	0.20	0.24	0.29	0.35	0.41
TOTAL :	22.15	20.66	19.54	18.79	18.54
<u>Assets</u>					
Fixed Assets (Gross)	17.95	17.95	17.95	17.95	17.95
Gross Dep.	2.69	4.98	6.93	8.58	9.99
Net Fixed Assets	15.26	12.97	11.02	9.37	7.96
Current Assets					
Sundry Debtors	2.32	2.76	3.16	3.60	4.08
Stock in Hand	2.89	3.31	3.74	4.21	4.70
Cash and Bank	0.48	0.32	0.20	0.11	0.19
Loans & Advances /Other Current Assets	1.20	1.30	1.40	1.50	1.60
TOTAL :	22.15	20.66	19.54	18.79	18.54

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	50%	55%	60%	65%	70%
<u>SALES</u>					
Gross Sale					
Brake Liner	69.60	82.91	94.95	108.11	122.28
Total	69.60	82.91	94.95	108.11	122.28
COST OF SALES					
Raw Material Consumed	34.56	39.12	43.89	49.05	54.43
Electricity Expenses	2.11	2.32	2.53	2.75	2.96
Depreciation	2.69	2.29	1.95	1.65	1.41
Wages & labour	10.32	13.00	16.25	19.50	23.02
Repair & maintenance	0.77	1.24	1.42	1.62	1.83
Packaging	1.74	2.07	2.37	2.70	3.06
Cost of Production	52.19	60.06	68.42	77.27	86.70
Add: Opening Stock	-	1.74	2.00	2.28	2.58
Less: Closing Stock	1.74	2.00	2.28	2.58	2.89
Cost of Sales	50.45	59.79	68.14	76.98	86.39
GROSS PROFIT	19.15	23.11	26.80	31.13	35.89
	27.51%	27.88%	28.23%	28.80%	29.35%
Salary to Staff	5.88	7.64	9.17	10.82	12.45
Interest on Term Loan	1.59	1.40	1.00	0.61	0.21
Interest on working Capital	0.44	0.44	0.44	0.44	0.44
Rent	3.00	3.15	3.31	3.47	3.65
Selling & Administrative Exp.	2.51	2.90	3.32	3.78	4.28
TOTAL	13.41	15.53	17.24	19.13	21.02
NET PROFIT	5.74	7.58	9.56	12.01	14.87
	8.25%	9.15%	10.07%	11.10%	12.16%
Taxation	0.15	0.54	0.95	0.94	1.83
PROFIT (After Tax)	5.59	7.05	8.61	11.07	13.04

PROJECTED CASH FLOW STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.24				
Net Profit	5.74	7.58	9.56	12.01	14.87
Depreciation & Exp. W/off	2.69	2.29	1.95	1.65	1.41
Increase in Cash Credit	3.96	-	-	-	-
Increase In Term Loan	16.16	-	-	-	-
Increase in Creditors	0.81	0.11	0.11	0.12	0.13
Increase in Provisions & Oth liabilities	0.20	0.04	0.05	0.06	0.07
	-				
TOTAL :	31.79	10.02	11.67	13.84	16.47
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	17.95				
Increase in Stock	2.89	0.41	0.44	0.47	0.49
Increase in Debtors	2.32	0.44	0.40	0.44	0.47
Repayment of Term Loan Loans & Advances /Other Current Assets	1.80	3.59	3.59	3.59	3.59
Drawings	1.20	0.10	0.10	0.10	0.10
Taxation	5.00	5.10	6.30	8.40	9.90
	0.15	0.54	0.95	0.94	1.83
TOTAL :	31.31	10.19	11.78	13.93	16.39
Opening Cash & Bank Balance	-	0.48	0.32	0.20	0.11
Add : Surplus	0.48	(0.17)	(0.11)	(0.10)	0.08
Closing Cash & Bank Balance	0.48	0.32	0.20	0.11	0.19

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	8.28	9.33	10.56	12.72	14.44
Interest on Term Loan	1.59	1.40	1.00	0.61	0.21
Total	9.87	10.73	11.56	13.33	14.66
<u>REPAYMENT</u>					
Instalment of Term Loan	1.80	3.59	3.59	3.59	3.59
Interest on Term Loan	1.59	1.40	1.00	0.61	0.21
Total	3.38	4.99	4.59	4.20	3.80
DEBT SERVICE COVERAGE RATIO	2.92	2.15	2.52	3.17	3.85
AVERAGE D.S.C.R.	2.87				

Working Capital Requirement

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
(10 Days)	1.74	2.00	2.28	2.58	2.89
<u>Raw Material</u>					
(10 Days)	1.15	1.30	1.46	1.63	1.81
Closing Stock	2.89	3.31	3.74	4.21	4.70

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					(in Lacs)
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	2.89				
Less : Creditors	0.81				
Paid stock	2.09	10%	0.21	90%	1.88
Sundry Debtors	2.32	10%	0.23	90%	2.09
	4.41		0.44		3.96
MPBF					3.96
WORKING CAPITAL LIMIT DEMAND (from Bank)					3.96
Working Capital Margin					0.44

Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest	11.00%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	16.16	16.16	-	-	16.16
	2nd month	16.16	-	16.16	0.15	-	16.16
	3rd month	16.16	-	16.16	0.15	-	16.16
	4th month	16.16	-	16.16	0.15	-	16.16
	5th month	16.16	-	16.16	0.15	-	16.16
	6th month	16.16	-	16.16	0.15	-	16.16
	7th month	16.16	-	16.16	0.15	0.30	15.86
	8th month	15.86	-	15.86	0.15	0.30	15.56
	9th month	15.56	-	15.56	0.14	0.30	15.26
	10th month	15.26	-	15.26	0.14	0.30	14.96
	11th month	14.96	-	14.96	0.14	0.30	14.66
	12th month	14.66	-	14.66	0.13	0.30	14.36
					1.59	1.80	
2nd	Opening Balance						
	1st month	14.36	-	14.36	0.13	0.30	14.06
	2nd month	14.06	-	14.06	0.13	0.30	13.76
	3rd month	13.76	-	13.76	0.13	0.30	13.46
	4th month	13.46	-	13.46	0.12	0.30	13.16
	5th month	13.16	-	13.16	0.12	0.30	12.86
	6th month	12.86	-	12.86	0.12	0.30	12.57

	7th month	12.57	-	12.57	0.12	0.30	12.27
	8th month	12.27	-	12.27	0.11	0.30	11.97
	9th month	11.97	-	11.97	0.11	0.30	11.67
	10th month	11.67	-	11.67	0.11	0.30	11.37
	11th month	11.37	-	11.37	0.10	0.30	11.07
	12th month	11.07	-	11.07	0.10	0.30	10.77
					1.40	3.59	
3rd	Opening Balance						
	1st month	10.77	-	10.77	0.10	0.30	10.47
	2nd month	10.47	-	10.47	0.10	0.30	10.17
	3rd month	10.17	-	10.17	0.09	0.30	9.87
	4th month	9.87	-	9.87	0.09	0.30	9.57
	5th month	9.57	-	9.57	0.09	0.30	9.27
	6th month	9.27	-	9.27	0.09	0.30	8.98
	7th month	8.98	-	8.98	0.08	0.30	8.68
	8th month	8.68	-	8.68	0.08	0.30	8.38
	9th month	8.38	-	8.38	0.08	0.30	8.08
	10th month	8.08	-	8.08	0.07	0.30	7.78
	11th month	7.78	-	7.78	0.07	0.30	7.48
	12th month	7.48	-	7.48	0.07	0.30	7.18
					1.00	3.59	
4th	Opening Balance						
	1st month	7.18	-	7.18	0.07	0.30	6.88
	2nd month	6.88	-	6.88	0.06	0.30	6.58
	3rd month	6.58	-	6.58	0.06	0.30	6.28

	4th month	6.28	-	6.28	0.06	0.30	5.98
	5th month	5.98	-	5.98	0.05	0.30	5.68
	6th month	5.68	-	5.68	0.05	0.30	5.39
	7th month	5.39	-	5.39	0.05	0.30	5.09
	8th month	5.09	-	5.09	0.05	0.30	4.79
	9th month	4.79	-	4.79	0.04	0.30	4.49
	10th month	4.49	-	4.49	0.04	0.30	4.19
	11th month	4.19	-	4.19	0.04	0.30	3.89
	12th month	3.89	-	3.89	0.04	0.30	3.59
					0.61	3.59	
5th	Opening Balance						
	1st month	3.59	-	3.59	0.03	0.30	3.29
	2nd month	3.29	-	3.29	0.03	0.30	2.99
	3rd month	2.99	-	2.99	0.03	0.30	2.69
	4th month	2.69	-	2.69	0.02	0.30	2.39
	5th month	2.39	-	2.39	0.02	0.30	2.09
	6th month	2.09	-	2.09	0.02	0.30	1.80
	7th month	1.80	-	1.80	0.02	0.30	1.50
	8th month	1.50	-	1.50	0.01	0.30	1.20
	9th month	1.20	-	1.20	0.01	0.30	0.90
	10th month	0.90	-	0.90	0.01	0.30	0.60
	11th month	0.60	-	0.60	0.01	0.30	0.30
	12th month	0.30	-	0.30	0.00	0.30	-
					0.21	3.59	
	DOOR TO DOOR MORATORIUM PERIOD	60		MONTHS			
	REPAYMENT PERIOD	6		MONTHS			
		54		MONTHS			

Assumptions:

1. Production Capacity of Brake Liner Plant is taken at 96 pieces per day. First year, Capacity has been taken @ 50%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 10 days and 10 days respectively.
4. Credit period to Sundry Debtors has been given for 10-15 days.
5. Credit period by the Sundry Creditors has been provided for 10-15 days.
6. Depreciation and Income tax has been taken as per the Income tax Act,1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 22 KW.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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