

PROJECT REPORT

Of

HAIR GEL

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Hair Gel**.

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 : xxxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
Pin: xxxxxxxx State: xxxxxxxxxx
Mobile xxxxxxxx
- 5 Product and By Product : **HAIR GEL**
- 6 Name of the project / business activity proposed : **HAIR GEL MANUFACTURING UNIT**
- 7 Cost of Project : Rs.23.17 Lakhs
- 8 Means of Finance
Term Loan Rs.14.85 Lakhs
Own Capital Rs.2.32 Lakhs
Working Capital Rs.6 Lakhs
- 9 Debt Service Coverage Ratio : 2.85
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 41%
- 13 Employment : 14 Persons
- 14 Power Requirement : 30 KW
- 15 Major Raw materials : Deionized water, Ethyl Alcohol, Glycerin, Carbomer 940, Triethanolamine, Flavor & other consumables.
- 16 Estimated Annual Sales Turnover (Max Utilized Capacity) : 170.69 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 2000 Sq ft	Own/Rented
Plant & Machinery	15.00
Furniture & Fixtures	1.50
Working Capital	6.67
Total	23.17

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.32
Term Loan	14.85
Working Capital	6.00
Total	23.17

HAIR GEL

Introduction: Hair gel is a styling product designed to create movement and hold hair in place. It can also be used to slick hair back or tame flyaway pieces. Styling gels are great way of adding texture, body and shine and can be found in different strengths. Hair gel is a hair styling product that is used to stiffen hair into a particular hairstyle. Hair gel is composed of mostly water and may contain humectants, proteins; conditioners and oils. There are many types of hair gel. Gels can hold moisture and protect the hair, enhance and define curls, lengthen the hair, style hair into place, control frizz, create a flexible hold, add body and shine, provide help with manageability of the hair and provide a smooth comb through. Hair gels are perfect for most hair types and can be applied to wet or dry hair. Gel holds very well with minimal white residue and it can last up to seven days if any protect hair at night.



USES & MARKET POTENTIAL: Increased consumer awareness about the benefits of natural and organic ingredients in hair care products has fueled the demand for active ingredients. The trend for natural ingredients is quite strong in hair care products with many companies launching products focused on active botanical ingredients to attract the consumer. Some hair gels, particularly those that are organic, also offer benefits beyond stronghold and an attractive look. This is because organic hair gels are infused with organic herbs that will soak into both scalp and hair, thereby, providing nutrients necessary for healthy scalp and hair. Global Hair Gel Market is expected to rise from its initial estimated value of USD 1.79 billion in 2018 to an estimated value of USD 2.49 million by 2026, registering a CAGR of 4.20% during the forecast period of 2019-2026. This rise in market value can be attributed to the growing demand of natural hair gel and rising need for hair styling among younger population.

Product:

Hair Gel

Raw Material:

1. Deionized Water
2. Ethyl Alcohol
3. Glycerin
4. Carbomer 940
5. Triethanolamine
6. Flavor & other consumables
7. Packing material

Manufacturing Process:

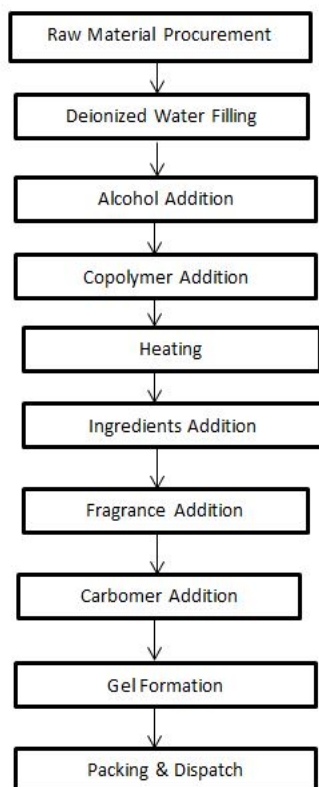


Fig.1 – Flow Chart

In personal care products manufacturing, formulation of raw material with fragrance plays an important role. The raw material for hair gel is procured from the local authorized vendor and stored in the inventory. In the first step, the deionized water, Ethyl alcohol and PVP VA copolymer are mixed in a steel tank in required proportion. The overall composition of the ingredients is shown below;

The continuous stirring of the mixture is performed using an agitator for uniform mixing of the components. The tank is heated to a temperature of 50-60°C by using steam jacketed kettle. The jacketed kettle, resembles a double

boiler with one container placed inside another, is heated when steam is circulated through the outer container. Inside the interior kettle are blades that revolve to mix the oils as they are heated.

At this temperature carrageenan powder, glycerin, and vegetable oil are added into the mixture. After heating for 20 minutes the first group of ingredients has turned smooth. The steam is released from the outer container of the kettle, and the mixture is allowed to cool.

When the mixture temperature reaches the room temperature panthenol, Triethanolamine and flavor are added in required proportion into the mixture and thoroughly mixed. After this, the mixture is transferred into the homogenizer. Now Carbomer is added into the mixture in required percentage and thoroughly stirred into the homogenizer.

Continuous stirring is done to avoid any bubble formation into the solution. After 40-45 minutes of continuous stirring gel formation begins. The mixture is allowed to settle down into freezers for gel formation.

The gel prepared in the previous step is checked for desired specifications. After this, they are filled in the bottles using filling machine. After this, they are packed and dispatched as per the required quantity.

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500 - 2000 Sqft.

Machines:

1. **Steam Jacketed Kettle**- A steam jacketed kettle has double boiler container with steam heating and stirring capability. Easy in filling and emptying the vessel for handling.



2. **Agitator** - The purpose of Agitator is to rotate the water at desired rpm so that calcium hypochlorite is thoroughly mixed in the water.



3. **Homogenizer** -This machine is used to make the uniform concentration of gel by reducing its viscosity.



4. **Paste Filling and Sealing Machine**- This machine is used to fill the paste and seal the tube as per required quantity.



Equipments:

Storage Tank -The tanks are used to store the paste during processing phase.



Pump-Pumps are used to transfer the oil from crude oil tank to filter cloth.

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Capital Account					
Opening Balance	-	3.21	5.03	9.39	13.89
Add: Additions	2.32	-	-	-	-
Add: Net Profit	1.89	3.32	8.36	12.49	16.08
Less: Drawings	1.00	1.50	4.00	8.00	12.00
Closing Balance	3.21	5.03	9.39	13.89	17.97
CC Limit	6.00	6.00	6.00	6.00	6.00
Term Loan	13.20	9.90	6.60	3.30	-
Sundry Creditors	0.97	1.25	1.55	1.87	2.23
TOTAL :	23.39	22.18	23.55	25.06	26.20
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	16.50	16.50	16.50	16.50	16.50
Gross Dep.	2.40	4.45	6.19	7.69	8.96
Net Fixed Assets	14.10	12.05	10.31	8.81	7.54
Current Assets					
Sundry Debtors	3.65	4.82	5.98	7.21	8.53
Stock in Hand	4.11	5.08	6.21	7.43	8.77
Cash and Bank	1.52	0.23	1.05	1.60	1.35
TOTAL :	23.39	22.18	23.55	25.06	26.20
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	73.08	96.43	119.50	144.26	170.69
Total (A)	73.08	96.43	119.50	144.26	170.69
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	41.58	53.36	66.34	80.33	95.68
Electricity Expenses	2.83	3.46	4.09	4.72	5.35
Repair & Maintenance	0.37	0.48	0.60	0.72	0.85
Labour & Wages	13.66	15.03	16.53	18.18	20.00
Depreciation	2.40	2.05	1.75	1.49	1.27
Cost of Production	60.84	74.38	89.31	105.44	123.16
Add: Opening Stock /WIP	-	2.03	2.41	2.90	3.42
Less: Closing Stock /WIP	2.03	2.41	2.90	3.42	3.99
Cost of Sales (B)	58.81	74.00	88.83	104.92	122.59
C) GROSS PROFIT (A-B)	14.27	22.44	30.68	39.33	48.10
	19.52%	23.27%	25.67%	27.27%	28.18%
D) Bank Interest (Term Loan)	1.61	1.32	0.95	0.59	0.23
ii) Interest On Working Capital	0.66	0.66	0.66	0.66	0.66
E) Salary to Staff	4.62	5.08	5.59	6.15	6.76
F) Selling & Adm Expenses Exp.	5.48	12.05	14.94	18.03	21.34
TOTAL (D+E)	12.37	19.11	22.14	25.43	28.99
H) NET PROFIT	1.89	3.32	8.54	13.90	19.12
	2.6%	3.4%	7.1%	9.6%	11.2%
I) Taxation	-	-	0.18	1.41	3.04
J) PROFIT (After Tax)	1.89	3.32	8.36	12.49	16.08

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.32	-			
Net Profit	1.89	3.32	8.54	13.90	19.12
Depreciation & Exp. W/off	2.40	2.05	1.75	1.49	1.27
Increase In Cash Credit	6.00				
Increase In Term Loan	14.85	-	-	-	-
Increase in Creditors	0.97	0.27	0.30	0.33	0.36
TOTAL :	28.44	5.65	10.59	15.72	20.75
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	16.50	-	-	-	-
Increase in Stock	4.11	0.97	1.13	1.22	1.34
Increase in Debtors	3.65	1.17	1.15	1.24	1.32
Repayment of Term Loan	1.65	3.30	3.30	3.30	3.30
Taxation	-	-	0.18	1.41	3.04
Drawings	1.00	1.50	4.00	8.00	12.00
TOTAL :	26.91	6.94	9.76	15.17	21.00
Opening Cash & Bank Balance	-	1.52	0.23	1.05	1.60
Add : Surplus	1.52	- 1.30	0.83	0.55	- 0.25
Closing Cash & Bank Balance	1.52	0.23	1.05	1.60	1.35

COMPUTATION OF HAIR GEL MANUFACTURING UNIT**Items to be Manufactured HAIR GEL**

Manufacturing Capacity per Day		1,400.00	pcs of 100gm tubes
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		420,000	pcs of 100gm tubes
Year		Capacity	HAIR GEL MANUFACTURING UNIT
		Utilisation	
I		45%	189,000
II		55%	231,000
III		65%	273,000
IV		75%	315,000
V		85%	357,000

COMPUTATION OF RAW MATERIAL

Item Name	Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
Deionized Water	30,000.00	kg	15.00	450,000.00
Ethyl Alcohol	11,500.00	kg	95.00	1,092,500.00
Glycerin	5,500.00	pcs	150.00	825,000.00
Carbomer 940	1,200.00	kg	450.00	540,000.00
Triethanolamine	1,200.00	pcs	650.00	780,000.00
Packing material	450,000.00	pcs	12.00	5,400,000.00
Flavor & other consumable	I.s			250,000.00
Total	450,000.00			9,337,500.00

Total Raw material in Rs lacs at 100% Capacity 93.38
Average Cost per PCS (In Rs) 22.00

Raw Material Consumed	Capacity Utilisation	Rate	Amount (Rs.)
I	45%	22.00	41.58
II	55%	23.10	53.36
III	65%	24.30	66.34
IV	75%	25.50	80.33
V	85%	26.80	95.68

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(10 Days requirement)	2.03	2.41	2.90	3.42	3.99
Raw Material					
(20 Days requirement)	2.08	2.67	3.32	4.02	4.78
Closing Stock	4.11	5.08	6.21	7.43	8.77

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	4.11		
Less:			
Sundry Creditors	0.97		
Paid Stock	3.14	0.31	2.82
Sundry Debtors	3.65	0.37	3.29
Working Capital Requirement			6.11
Margin			0.68
MPBF			6.11
Working Capital Demand			6.00

BREAK UP OF LABOUR

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		20,000.00	1	20,000.00
Plant Operator		15,000.00	1	15,000.00
Unskilled Worker		8,500.00	6	51,000.00
Helper		5,000.00	2	10,000.00
Security Guard		7,500.00	1	7,500.00
				103,500.00
Add: 10% Fringe Benefit				10,350.00
Total Labour Cost Per Month				113,850.00
Total Labour Cost for the year (In Rs. Lakhs)			11	13.66

BREAK UP OF SALARY

Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Accountant cum store keeper		10,000.00	1	10,000.00
Administrative Staffs		12,500.00	2	25,000.00
Total Salary Per Month				35,000.00
Add: 10% Fringe Benefit				3,500.00
Total Salary for the month				38,500.00
Total Salary for the year (In Rs. Lakhs)			3	4.62

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation			15.00%	10.00%	
Opening Balance	Own/Rented		-	-	-
Addition	-		15.00	1.50	16.50
	-		15.00	1.50	16.50
TOTAL		-	15.00	1.50	16.50
Less : Depreciation	-	-	2.25	0.15	2.40
WDV at end of Ist year	-	-	12.75	1.35	14.10
Additions During The Year	-	-	-	-	-
	-	-	12.75	1.35	14.10
Less : Depreciation	-	-	1.91	0.14	2.05
WDV at end of IIInd Year	-	-	10.84	1.22	12.05
Additions During The Year	-	-	-	-	-
	-	-	10.84	1.22	12.05
Less : Depreciation	-	-	1.63	0.12	1.75
WDV at end of IIIrd year	-	-	9.21	1.09	10.31
Additions During The Year	-	-	-	-	-
	-	-	9.21	1.09	10.31
Less : Depreciation	-	-	1.38	0.11	1.49
WDV at end of IV year	-	-	7.83	0.98	8.81
Additions During The Year	-	-	-	-	-
	-	-	7.83	0.98	8.81
Less : Depreciation	-	-	1.17	0.10	1.27
WDV at end of Vth year	-	-	6.66	0.89	7.54

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	14.85	14.85	0.41	-	14.85
	IInd Quarter	14.85	-	14.85	0.41	-	14.85
	IIIrd Quarter	14.85	-	14.85	0.41	0.83	14.03
	Ivth Quarter	14.03	-	14.03	0.39	0.83	13.20
					1.61	1.65	
II	Opening Balance						
	Ist Quarter	13.20	-	13.20	0.36	0.83	12.38
	IInd Quarter	12.38	-	12.38	0.34	0.83	11.55
	IIIrd Quarter	11.55	-	11.55	0.32	0.83	10.73
	Ivth Quarter	10.73		10.73	0.29	0.83	9.90
					1.32	3.30	
III	Opening Balance						
	Ist Quarter	9.90	-	9.90	0.27	0.83	9.08
	IInd Quarter	9.08	-	9.08	0.25	0.83	8.25
	IIIrd Quarter	8.25	-	8.25	0.23	0.83	7.43
	Ivth Quarter	7.43		7.43	0.20	0.83	6.60
					0.95	3.30	
IV	Opening Balance						
	Ist Quarter	6.60	-	6.60	0.18	0.83	5.78
	IInd Quarter	5.78	-	5.78	0.16	0.83	4.95
	IIIrd Quarter	4.95	-	4.95	0.14	0.83	4.13
	Ivth Quarter	4.13		4.13	0.11	0.83	3.30
					0.59	3.30	
V	Opening Balance						
	Ist Quarter	3.30	-	3.30	0.09	0.83	2.48
	IInd Quarter	2.48	-	2.48	0.07	0.83	1.65
	IIIrd Quarter	1.65	-	1.65	0.05	0.83	0.83
	Ivth Quarter	0.83		0.83	0.02	0.83	0.00
					0.23	3.30	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	4.29	5.37	10.11	13.98	17.35
Interest on Term Loan	1.61	1.32	0.95	0.59	0.23
Total	5.91	6.69	11.06	14.57	17.58
<u>REPAYMENT</u>					
Repayment of Term Loan	1.65	3.30	3.30	3.30	3.30
Interest on Term Loan	1.61	1.32	0.95	0.59	0.23
Total	3.26	4.62	4.25	3.89	3.53
DEBT SERVICE COVERAGE RATIO	1.81	1.45	2.60	3.75	4.98
AVERAGE D.S.C.R.			2.85		

COMPUTATION OF SALE

Particulars	I	II	III	IV	V
Op Stock	-	6,300.00	7,700.00	9,100.00	10,500.00
Production	189,000.00	231,000.00	273,000.00	315,000.00	357,000.00
	189,000.00	237,300.00	280,700.00	324,100.00	367,500.00
Less : Closing Stock(10 Days)	6,300.00	7,700.00	9,100.00	10,500.00	11,900.00
Net Sale	182,700.00	229,600.00	271,600.00	313,600.00	355,600.00
Avg Sale Price per pcs	40.00	42.00	44.00	46.00	48.00
Sale (in Lacs)	73.08	96.43	119.50	144.26	170.69

COMPUTATION OF ELECTRICITY**(A) POWER CONNECTION**

Total Working Hour per day	Hours	8	
Electric Load Required	KW	30	
Load Factor			
Electricity Charges	per unit	7.50	
Total Working Days		300	
Electricity Charges			5.40
Add : Minimim Charges (@ 10%)			

(B) DG set

No. of Working Days		300	days
No of Working Hours		0.5	Hour per day
Total no. of Hour		150	
Diesel Consumption per Hour		8	
Total Consumption of Diesel		1,200	
Cost of Diesel		65.00	Rs. /Ltr
Total cost of Diesel		0.78	
Add : Lube Cost @15%		0.12	
Total		0.90	
Total cost of Power & Fuel at 100%			6.30

Year	Capacity	Amount (in Lacs)
I	45%	2.83
II	55%	3.46
III	65%	4.09
IV	75%	4.72
V	85%	5.35

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