

PROJECT REPORT

Of

CRAYONS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding crayons 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.]



Lucknow Office: Sidhivinayak Building ,
27/1/B, Gokhley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training
Centre, Gandhi Darshan Rajghat,
New Delhi 110002

Email : info@udyami.org.in
Contact : +91 7526000333, 444, 555

PROJECT AT GLANCE

1 Name of Proprietor/Director	XXXXXXXXXX
2 Firm Name	XXXXXXXXXX
3 Registered Address	XXXXXXXXXX
4 Nature of Activity	XXXXXXXXXX
5 Category of Applicant	XXXXXXXXXX
6 Location of Unit	XXXXXXXXXX
7 Cost of Project	24.46 Rs. In Lakhs
8 Means of Finance	
i) Own Contribution	2.45 Rs. In Lakhs
ii) Term Loan	16.20 Rs. In Lakhs
iii) Working Capital	5.81 Rs. In Lakhs
9 Debt Service Coverage Ratio	2.97
10 Break Even Point	40%
11 Power Requirement	15 KW
12 Employment	10 Persons
13 Major Raw Materials	Paraffin wax and powder colour pigment

14 Details of Cost of Project & Means of Finance

Cost of Project	Amount in Lacs
Particulars	Amount
Land and building	Owned/Leased
Plant & Machinery	16.50
Furniture & Fixture	-
Other Misc Assets	1.50
Working Capital Requirement	6.46
Total	24.46

Means of Finance	
Particulars	Amount
Own Contribution	2.45
Term Loan	16.20
Working capital Loan	5.81
Total	24.46

1. INTRODUCTION



Crayola brand crayons were the first kids' crayons ever made, invented by cousins, **Edwin Binney and C. Harold Smith**. The brand's first box of eight Crayola crayons made its debut in 1903. A crayon (or wax pastel) is a stick of pigmented wax used for writing or drawing. Wax crayons differ from pastels in which the pigment is mixed with a dry binder such as gum arabic, and from oil pastels, where the binder is a mixture of wax and oil. Crayons are available in a range of prices, and are easy to work with. They are less messy than most paints and markers, blunt (removing the risk of sharp points present when using a pencil or pen), typically non-toxic, and available in a wide variety of colors. These characteristics make them particularly good instruments for teaching small children to draw in addition to being used widely by student and professional artists. The crayon changed the way children grow. Crayon not only used for coloring but the crayon has also sparked the creation of new and alternative forms of art and promoted early development in children. The crayon has drastically evolved color and has helped enable psychological analysis.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

- Crayons are used by professional artist **to create** colourful, vibrant, realistic, and whimsical pieces of art.
- Crayon colour are used for the manufacturing of colourful candle by melting in a candle mould.

- Crayon colour are used to get the impressed design on the cotton/fabric clothes.
- Crayon colour are used by kid children for drawing & writing purpose.

2.2 **MANUFACTURING PROCESS**

This process can be broken down into the following steps-

Raw material procurement

Production Process

Raw Material Procurement

Procurement is the connection process of purchasing and arranging in bound movement of all items, supplies, materials, parts, finished inventory and general support services from the suppliers into manufacturing process or assembly plants or warehouses.

Production Process

Steps involved in the manufacturing of Crayons

- ✓ **Storage of hot paraffin (Wax):** The storage of the hot paraffin (Wax) is the initial step of manufacturing of Crayons in crayon making plant.
- ✓ **Preparation of colour pigment:** The process either use individual colours or mix the pigments to produce the many colours of Crayola Crayons.
- ✓ **Mixing of wax and colour pigment:** The liquid wax mixed properly with the powder form of colour pigment along with some white additive to improve the crayons quality.
- ✓ **Hot, waxy liquid is poured into crayon moulding tables:** The mixing of wax and pigment injected into crayon mould and solidification take place.
- ✓ **Cooling of the moulding table:** Cold water travels through tubes in the molds to cool the wax down.

- ✓ **Removal of extra metal:** The extra metal inserted on the surface during cooling process can be removed by scraper.
- ✓ **Labelling and packaging of finished product:** The labelling & packaging process required to maintain the quality of Crayons colour.

3. PROJECT COMPONENTS

3.1 Land & Building

The land required for this manufacturing unit will be approx. around 600 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.10,000 per month.

- Workshop Area- This area includes the setup and foundation space for all equipment's, work floor area, etc. Total workshop area is approx.200 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials and finished goods. Total inventory area is approx. 200 Sqft.
- Office Area – This space includes staff working region, their accommodation space. Total workshop area is approx. 100 Sqft. This may be considered above the ground floor.
- Parking Space, Electric Mounting Space, and Others. This could be approx. 100 Sqft.

Land and building requirement may vary depending on the size of project.

3.2 Plant & Machinery

- **Mixing chamber machine,** the mixing chamber machine are used for proper mixing of liquid wax with powder colour pigment to get the required input raw material for colour moulding process.



- **Injection Moulding machine:** The machine contains a number of orifice (mould). The liquid mixture injected into the mould and machine continuously vibrates for proper mould filling to take place. The water jacket passes through these moulds so that proper solidification takes place.



- **Labelling Machine:** The labelling machine are used for label the colour pieces according to colours. Gels are used for labelling purpose.



- **Packaging Machine:** The packaging machine are used for suitable packing of Crayon according to colour segment.



Machine	Quantity	Price
Mixing Chamber	1	1,50,000
Crayon Mould	1	10,00,000
Labelling machine	1	3,00,000
Packaging machine	1	2,00,000
TOTAL		16,50,000

Note: Total Machinery cost shall be Rs 16.50 lakhs (Approx.) including GST and Transportation Cost.

4 LICENSE & APPROVALS

Basic registration required in this project:

- MSME Udyam registration
- GST registration
- NOC for fire safety board and Pollution Control Board
- BIS Certification
- ISO Certification
- Trade License
- Factory License (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Projected Profitability

<u>PROJECTED PROFITABILITY STATEMENT</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	60%	65%	70%	75%	80%
<u>SALES</u>					
Gross Sale					
Crayons	98.45	119.90	140.88	163.55	187.89
Total	98.45	119.90	140.88	163.55	187.89
<u>COST OF SALES</u>					
Raw Material Consumed	75.60	87.36	94.08	100.80	107.52
Electricity Expenses	1.73	1.87	2.02	2.16	2.30
Depreciation	2.70	2.30	1.95	1.66	1.41
Wages & labour	6.72	11.09	22.07	33.76	46.59
Repair & maintenance	0.30	0.36	0.42	0.49	0.56
Packaging	0.10	0.14	0.17	0.20	0.23
Cost of Production	87.14	103.12	120.70	139.06	158.61
Add: Opening Stock	-	2.03	2.41	2.82	3.24
Less: Closing Stock	2.03	2.41	2.82	3.24	3.70
Cost of Sales	85.11	102.75	120.29	138.64	158.15
GROSS PROFIT	13.34	17.16	20.59	24.91	29.73
	13.55%	14.31%	14.62%	15.23%	15.82%
Salary to Staff	3.96	5.15	6.07	6.99	8.10
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Interest on working Capital	0.64	0.64	0.64	0.64	0.64
Rent	1.20	1.38	1.59	1.83	2.10
Selling & Administrative Exp.	0.89	1.08	1.27	1.47	1.69
TOTAL	8.28	9.65	10.57	11.53	12.75
NET PROFIT	5.06	7.51	10.02	13.38	16.98
	5.14%	6.26%	7.11%	8.18%	9.04%
Taxation	0.01	0.52	1.01	1.37	2.49
PROFIT (After Tax)	5.05	6.99	9.01	12.01	14.49

Projected Balance Sheet

<u>PROJECTED BALANCE SHEET</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
Opening balance		3.79	6.53	10.04	13.56
Add:- Own Capital	2.45				
Add:- Retained Profit	5.05	6.99	9.01	12.01	14.49
Less:- Drawings	3.70	4.25	5.50	8.50	10.30
Closing Balance	3.79	6.53	10.04	13.56	17.75
Term Loan	14.40	10.80	7.20	3.60	-
Working Capital Limit	5.81	5.81	5.81	5.81	5.81
Sundry Creditors	1.76	2.04	2.20	2.35	2.51
Provisions & Other Liability	0.40	0.48	0.58	0.80	0.96
TOTAL :	26.17	25.66	25.82	26.11	27.02
<u>Assets</u>					
Fixed Assets (Gross)					
Gross Dep.	2.70	5.00	6.95	8.60	10.01
Net Fixed Assets	15.30	13.01	11.05	9.40	7.99
Current Assets					
Sundry Debtors	4.92	6.00	7.04	8.18	9.39
Stock in Hand	3.29	3.86	4.38	4.92	5.49
Cash and Bank	0.15	0.10	0.14	0.12	0.15
Loans & Advances /Other Current Assets	2.50	2.70	3.20	3.50	4.00
TOTAL :	26.17	25.66	25.82	26.11	27.02

Projected Cash Flow Statement

<u>PROJECTED CASH FLOW STATEMENT</u>					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.45				
Net Profit	5.06	7.51	10.02	13.38	16.98
Depreciation & Exp. W/off	2.70	2.30	1.95	1.66	1.41
Increase in Cash Credit	5.81	-	-	-	-
Increase In Term Loan	16.20	-	-	-	-
Increase in Creditors	1.76	0.27	0.16	0.16	0.16
Increase in Provisions & Oth liabilities	0.40	0.08	0.10	0.22	0.16
	-				
TOTAL :	34.38	10.16	12.22	15.42	18.71
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	18.00				
Increase in Stock	3.29	0.57	0.52	0.54	0.57
Increase in Debtors	4.92	1.07	1.05	1.13	1.22
Repayment of Term Loan	1.80	3.60	3.60	3.60	3.60
Loans & Advances /Other Current Assets	2.50	0.20	0.50	0.30	0.50
Drawings	3.70	4.25	5.50	8.50	10.30
Taxation	0.01	0.52	1.01	1.37	2.49
TOTAL :	34.23	10.21	12.18	15.44	18.68
Opening Cash & Bank Balance	-	0.15	0.10	0.14	0.12
Add : Surplus	0.15	(0.05)	0.04	(0.02)	0.03
Closing Cash & Bank Balance	0.15	0.10	0.14	0.12	0.15

DSCR

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.75	9.28	10.96	13.67	15.90
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Total	9.34	10.69	11.97	14.28	16.12
REPAYMENT					
Instalment of Term Loan	1.80	3.60	3.60	3.60	3.60
Interest on Term Loan	1.59	1.40	1.01	0.61	0.21
Total	3.39	5.00	4.61	4.21	3.81
DEBT SERVICE COVERAGE RATIO	2.75	2.14	2.60	3.39	4.23
AVERAGE D.S.C.R.					2.97

Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
						Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	16.20	16.20	-	-	16.20
	2nd month	16.20	-	16.20	0.15	-	16.20
	3rd month	16.20	-	16.20	0.15	-	16.20
	4th month	16.20	-	16.20	0.15		16.20
	5th month	16.20	-	16.20	0.15		16.20
	6th month	16.20	-	16.20	0.15		16.20
	7th month	16.20	-	16.20	0.15	0.30	15.90
	8th month	15.90	-	15.90	0.15	0.30	15.60
	9th month	15.60	-	15.60	0.14	0.30	15.30
	10th month	15.30	-	15.30	0.14	0.30	15.00
	11th month	15.00	-	15.00	0.14	0.30	14.70
	12th month	14.70	-	14.70	0.13	0.30	14.40
					1.59	1.80	
2nd	Opening Balance						
	1st month	14.40	-	14.40	0.13	0.30	14.10
	2nd month	14.10	-	14.10	0.13	0.30	13.80
	3rd month	13.80	-	13.80	0.13	0.30	13.50
	4th month	13.50	-	13.50	0.12	0.30	13.20
	5th month	13.20	-	13.20	0.12	0.30	12.90
	6th month	12.90	-	12.90	0.12	0.30	12.60

	7th month	12.60	-	12.60	0.12	0.30	12.30
	8th month	12.30	-	12.30	0.11	0.30	12.00
	9th month	12.00	-	12.00	0.11	0.30	11.70
	10th month	11.70	-	11.70	0.11	0.30	11.40
	11th month	11.40	-	11.40	0.10	0.30	11.10
	12th month	11.10	-	11.10	0.10	0.30	10.80
					1.40	3.60	
3rd	Opening Balance						
	1st month	10.80	-	10.80	0.10	0.30	10.50
	2nd month	10.50	-	10.50	0.10	0.30	10.20
	3rd month	10.20	-	10.20	0.09	0.30	9.90
	4th month	9.90	-	9.90	0.09	0.30	9.60
	5th month	9.60	-	9.60	0.09	0.30	9.30
	6th month	9.30	-	9.30	0.09	0.30	9.00
	7th month	9.00	-	9.00	0.08	0.30	8.70
	8th month	8.70	-	8.70	0.08	0.30	8.40
	9th month	8.40	-	8.40	0.08	0.30	8.10
	10th month	8.10	-	8.10	0.07	0.30	7.80
	11th month	7.80	-	7.80	0.07	0.30	7.50
	12th month	7.50	-	7.50	0.07	0.30	7.20
					1.01	3.60	
4th	Opening Balance						
	1st month	7.20	-	7.20	0.07	0.30	6.90
	2nd month	6.90	-	6.90	0.06	0.30	6.60
	3rd month	6.60	-	6.60	0.06	0.30	6.30

	4th month	6.30	-	6.30	0.06	0.30	6.00
	5th month	6.00	-	6.00	0.05	0.30	5.70
	6th month	5.70	-	5.70	0.05	0.30	5.40
	7th month	5.40	-	5.40	0.05	0.30	5.10
	8th month	5.10	-	5.10	0.05	0.30	4.80
	9th month	4.80	-	4.80	0.04	0.30	4.50
	10th month	4.50	-	4.50	0.04	0.30	4.20
	11th month	4.20	-	4.20	0.04	0.30	3.90
	12th month	3.90	-	3.90	0.04	0.30	3.60
					0.61	3.60	
5th	Opening Balance						
	1st month	3.60	-	3.60	0.03	0.30	3.30
	2nd month	3.30	-	3.30	0.03	0.30	3.00
	3rd month	3.00	-	3.00	0.03	0.30	2.70
	4th month	2.70	-	2.70	0.02	0.30	2.40
	5th month	2.40	-	2.40	0.02	0.30	2.10
	6th month	2.10	-	2.10	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	3.60	
	DOOR TO DOOR MORATORIUM PERIOD	60		MONTHS			
	REPAYMENT PERIOD	6		MONTHS			
		54		MONTHS			

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