



PLASTER OF PARIS **BANDAGE**

Introduction

Ever since Plaster of Paris was first applied in the treatment of fractures over 150 years ago, it has proven indispensable in the non-operative management of not only musculoskeletal injuries but also other ailments requiring immobilization as well. A bandage consisting of a piece of cloth impregnated with Paris powder plaster, which is soaked in water and wrapped round or applied on one foot, etc., as it dries and hardens to form a plaster cast. Leading players in the market are 3M Company (US), Metronic PLC (Ireland), Johnson & Johnson Consumer Inc.

Market Potential

An increase in accidents such as road accidents, burns and traumatic events is expected to drive the market around the world. The global market for medical tapes and bandages is estimated at \$ 8.78 billion by 2020, and is expected to reach \$ 9.29 billion by 2021. The forecast period for 2020-2028 is expected to be the best for the plaster bandage market, which will be the face changer for the medical devices and consumer industry. Users are increasing day by day, which is increasing sales, imports, exports, revenue and CAGR values.

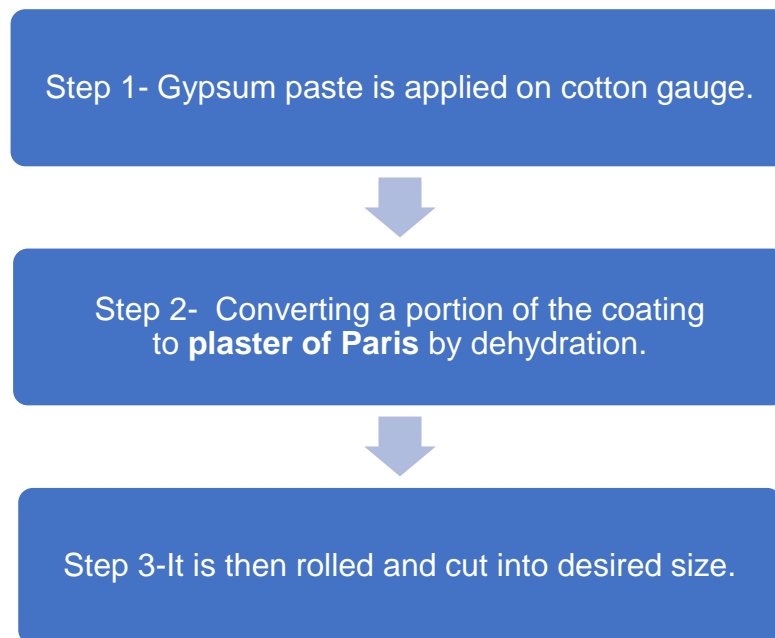
Product Uses

Plaster bandages are one of the most effective tools when it comes to mold making and casting. These are very useful for creating shell or mother molds. These are hard shells laid on mold-producing rubbers that provide the support needed for casting once the mold is removed from the model. Plaster of Paris bandage is widely used to treat bone fractures. A bandage is covered with plaster around the damaged area. It will hold the damaged area until it is recovered. Plaster bandages can also be used for mask making. The base mask captures the shape and form of the face of the person whose face is built.

Once the plaster bandages are set up you can carve, tie, paint and add a hook to hang from it.

Manufacturing Process

The process of forming plaster of paris bandages is characterized by following steps:-



Cost of Project

Particulars	Amt. (Rs. In Lakhs)
Leasehold Land	4.00
Civil works and Buildings (5000qft @1500/-)	75.00
Plant and machinery (Annexure)	29.90
Misc. Fixed Assets	5.10
DG SET 50KV	2.50
Escalation & Contingencies	5.83
Preliminary & Preoperative Expenses	8.18
Sub-total (A)	130.51
Working Capital Margin @40% of Total WC Requirement	78.41
Total Project Cost	208.92
Total Working Capital Req. (25% of 1st Year Project Turnover)	196.02
MEANS OF FINANCE	
Total funds required (A+B)	326.53
Loan component	-
Term loan (60% of A)	78.30
Working capital (60% of B)	117.61
TOTAL	195.92
Equity	130.61
TOTAL	326.53

Detailed Cost Element

SL	Particulars	Qty.	Amt. (Rs. in Lakhs)
1	Plaster of paris bandage making machine	1	7.50
2	Plaster of paris bandage rolling machine	2	8.00
3	Plaster of paris bandage cutting machine	12	14.40
	Total		29.90

Contingencies and Escalations

It has been assumed at approximately 5% at cost of project.

Preliminary Expenses

Particulars	Amt. (Rs. In Lakhs)
Incorporation Expenses	0.15
Project Report Preparation and Consultation	0.35
Feasibility and Engineer's/Architect's Report and Plans	1.88
Legal Charges - Drafting for agreements, contracts, stamp paper, notary and affidavit cost	0.05
Rent payments up to the start of commercial production	0.75
Other recurring expenses of revenue nature up to start of commercial	3.33
Interest Cost for period before commercial production	1.68
Total	8.18

Salary

Designation	Manpower	Amt. (Rs. In Lakhs)
Skilled	4	12.00
Unskilled	15	27.00

Profitability Statement

Particulars	Amount (Rs. In Lakhs)				
	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5
A.INCOME					
Maximum Capacity (metres)	43,20,000	43,20,000	43,20,000	43,20,000	43,20,000
Capacity for the year	33%	38.00%	43.00%	48.00%	53.00%
Production per annum at capacity utilisation	14,25,600	16,41,600	18,57,600	20,73,600	22,89,600
Annual Sales	784.08	902.88	1,021.68	1,140.48	1,259.28
TOTAL INCOME	784.08	902.88	1,021.68	1,140.48	1,259.28
B.OPERATING EXPENSES					
Raw material	626.74	721.70	816.66	911.62	1,006.58
Salary					
Skilled	12.00	13.20	14.52	15.97	17.57
Unskilled	27.00	29.70	32.67	35.94	39.53
Repair and Maintenance	0.60	0.62	0.65	0.67	0.70
Power	16.62	16.62	16.62	16.62	16.62
Lease Rent	3.00	3.00	3.00	3.00	3.00
Depreciation	15.37	15.37	15.37	15.37	15.37
Total Operating Expenses	701.32	800.21	899.48	999.19	1,099.36
Operating Profit (A-B)	82.76	102.67	122.20	141.29	159.92
C.FINANCIAL EXPENSES					
Interest	17.22	15.86	13.74	11.61	9.31
D. Other Expenses					
Administrative and general Expenses	15.68	18.06	20.43	22.81	25.19
Total Expenses	32.90	33.92	34.17	34.42	34.50
Profit Before Tax	49.86	68.75	88.03	106.87	125.42
Provision for Tax	12.46	17.19	22.01	26.72	31.35
Profit after Tax	37.39	51.56	66.02	80.15	94.06
Dividend Declared					
Profit	37.39	51.56	66.02	80.15	94.06

Breakeven Point

Break Even Point (BEP)		Amount (Rs. In Lakhs)				
SL	Particulars	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5
A.	Net Sales	784.08	902.88	1,021.68	1,140.48	1,259.28
B.	Variable Cost					
	Raw Material	626.74	721.70	816.66	911.62	1,006.58
	Power and Utility	16.62	16.62	16.62	16.62	16.62
	Other Misc. Expenses	15.68	18.06	20.43	22.81	25.19
	Total Variable Cost	659.04	756.38	853.71	951.05	1,048.39
	Contribution (A-B)	125.04	146.50	167.97	189.43	210.89
D.	Fixed and Semi-Fixed					
	labour Charges	39.00	42.90	47.19	51.91	57.10
	Lease Rent	3.00	3.00	3.00	3.00	3.00
	Repair & Maintenance	0.60	0.62	0.65	0.67	0.70
	Interest on term Loan	17.22	15.86	13.74	11.61	9.31
	Depreciation	15.37	15.37	15.37	15.37	15.37
	Total Fixed Cost	75.18	77.75	79.94	82.56	85.48
E.	BREAKEVEN POINT	60%	53%	48%	44%	41%
F.	CASH BEP	48%	43%	38%	35%	33%

Debt-Service Coverage Ratio

		Amount (Rs. in lakhs)				
SL	Particulars	Year - 1	Year - 2	Year - 3	Year - 4	Year - 5
i	Profit	37.39	51.56	66.02	80.15	94.06
ii	Depreciation	15.37	15.37	15.37	15.37	15.37
iii	Interest	17.22	15.86	13.74	11.61	9.31
A	Total (i + ii + iii)	69.98	82.79	95.12	107.13	118.74
i	Interest	17.22	15.86	13.74	11.61	9.31
ii	Principal repayment	12.50	25.00	25.00	25.00	25.00
B	Total (i + ii)	29.72	40.86	38.73	36.61	34.31
	DSCR (A / B)	2.35	2.03	2.46	2.93	3.46

Interest on Term Loan and Principal Repayment

Refer Annexure I.

We have assumed the repayment tenure of term loan for a period of 9 years, rate of interest being @8.5% with the moratorium period being 9 months.

Address of Vendors

Name of the vendor	Address and Contact Number
Fisher	556/1 , Naickenpalayam, Palamalai road, Coimbatore-641020 Phone No.-9843666660
Zhejiang Huikang	Shanagi, China Phone no.-8615057952483

ANNEXURE- I

ANNEXURE - I													
Year	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Annually
O													
Principal													
Opening	78.37	78.93	79.49	-	-	-	-	-	-	-	-	-	-
Repaid	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing	78.93	79.49	80.05	-	-	-	-	-	-	-	-	-	-
Interest	0.56	0.56	0.56	-	-	-	-	-	-	-	-	-	1.68
I													
Principal													
Opening	197.66	199.06	200.47	201.89	203.32	204.76	206.21	205.59	204.96	204.33	202.25	200.17	-
Repaid	-	-	-	-	-	-	2.08	2.08	2.08	2.08	2.08	2.08	12.50
Closing	199.06	200.47	201.89	203.32	204.76	206.21	205.59	204.96	204.33	202.25	200.17	198.08	-
Interest	1.40	1.41	1.42	1.43	1.44	1.45	1.46	1.46	1.45	1.45	1.43	1.42	17.22
II													
Principal													
Opening	198.08	196.00	193.92	191.84	189.75	187.67	185.59	183.50	181.42	179.34	177.26	175.17	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	196.00	193.92	191.84	189.75	187.67	185.59	183.50	181.42	179.34	177.26	175.17	173.09	-
Interest	1.40	1.39	1.37	1.36	1.34	1.33	1.31	1.30	1.29	1.27	1.26	1.24	15.86
III													
Principal													
Opening	173.09	171.01	168.92	166.84	164.76	162.67	160.59	158.51	156.43	154.34	152.26	150.18	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	171.01	168.92	166.84	164.76	162.67	160.59	158.51	156.43	154.34	152.26	150.18	148.09	-
Interest	1.23	1.21	1.20	1.18	1.17	1.15	1.14	1.12	1.11	1.09	1.08	1.06	13.74
IV													
Principal													
Opening	148.09	146.01	143.93	141.84	139.76	137.68	135.60	133.51	131.43	129.35	127.26	125.18	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	146.01	143.93	141.84	139.76	137.68	135.60	133.51	131.43	129.35	127.26	125.18	123.10	-
Interest	1.05	1.03	1.02	1.00	0.99	0.98	0.96	0.95	0.93	0.92	0.90	0.89	11.61
V													
Principal													
Opening	123.10	121.01	118.93	116.85	114.77	112.68	110.60	108.52	106.43	104.35	102.27	100.19	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	121.01	118.93	116.85	114.77	112.68	110.60	108.52	106.43	104.35	102.27	100.19	98.10	-
Interest	0.86	0.84	0.83	0.81	0.80	0.78	0.77	0.75	0.74	0.72	0.71	0.69	9.31
VI													
Principal													
Opening	98.10	96.02	93.94	91.85	89.77	87.69	85.60	83.52	81.44	79.36	77.27	75.19	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	96.02	93.94	91.85	89.77	87.69	85.60	83.52	81.44	79.36	77.27	75.19	73.11	-
Interest	0.69	0.68	0.67	0.65	0.64	0.62	0.61	0.59	0.58	0.56	0.55	0.53	7.36
VII													
Principal													
Opening	73.11	71.02	68.94	66.86	64.77	62.69	60.61	58.53	56.44	54.36	52.28	50.19	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	71.02	68.94	66.86	64.77	62.69	60.61	58.53	56.44	54.36	52.28	50.19	48.11	-
Interest	0.52	0.50	0.49	0.47	0.46	0.44	0.43	0.41	0.40	0.39	0.37	0.36	5.24
VIII													
Principal													
Opening	48.11	46.03	43.95	41.86	39.78	37.70	35.61	33.53	31.45	29.36	27.28	25.20	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	25.00
Closing	46.03	43.95	41.86	39.78	37.70	35.61	33.53	31.45	29.36	27.28	25.20	23.12	-
Interest	0.34	0.33	0.31	0.30	0.28	0.27	0.25	0.24	0.22	0.21	0.19	0.18	3.12
IX													
Principal													
Opening	23.12	21.03	18.95	16.87	14.78	12.70	10.62	8.53	6.45	4.37	2.29	-	-
Repaid	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.29	-	23.12
Closing	21.03	18.95	16.87	14.78	12.70	10.62	8.53	6.45	4.37	2.29	-	-	-
Interest	0.16	0.15	0.13	0.12	0.10	0.09	0.08	0.06	0.05	0.03	0.02	-	0.99