



AN ISO 9001 : 2015 CERTIFIED COMPANY

Detailed project report

Sample edition

Projections from FY 2027-28

Project report

Curcumin

Installed capacity 74 kg per day

Sector Essential oils and extracts

Total project cost ₹300.98 lakh

Illustrative sample
Figures are representative

Project at a glance

Curcumin
74 kg per day

Product	Curcumin	Sector	Essential oils and extracts
Installed capacity	74 kg per day	Annual capacity	22,200 kg per year
Selling price (ex-GST)	₹3,940 per kg	Working days	300 a year
Manpower	19 people	Plant and machinery	₹135.00 lakh
Total project cost	₹300.98 lakh	Promoter's contribution	₹75.24 lakh (25%)
Term loan	₹225.74 lakh (75%)	Cash credit limit	₹79.66 lakh
Revenue, Year 3	₹612.28 lakh at 70%	Net profit, Year 3	₹76.41 lakh
Return on investment	25.4% a year	Break-even, Year 3	37.7% of capacity
Average DSCR	1.98	Payback period	3.3 years

This is an illustrative sample. Its figures are generated from industry-typical ratios to show the format and depth of an NPCS project report. They are not taken from any NPCS report or any real project, and should not be used for investment or lending decisions.

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1 Introduction

The product covered in this sample is curcumin, made in a plant sized at 74 kg per day (22,200 kg per year at full capacity). The unit is costed as a complete project, from land and building through to working capital, and its applications range from natural yellow food colour (INS 100) for dairy, confectionery, bakery, sauces and beverages to cosmetic and skin care products.

Each section follows the layout of a bank-format project report: project cost, means of finance, working capital, profitability, cash flow, balance sheet, debt service and break-even. In Year 3, running at 70% of capacity, the model unit sells ₹612.28 lakh worth of curcumin and keeps ₹76.41 lakh as net profit.

2 Uses and applications

The product is bought for these main uses:

- Natural yellow food colour (INS 100) for dairy, confectionery, bakery, sauces and beverages
- Nutraceutical capsules, tablets and powder blends
- Ayurvedic and pharmaceutical formulations
- Cosmetic and skin care products

3 Market potential

Demand for curcumin comes from nutraceutical and dietary supplement brands, food and beverage makers who need a natural yellow colour in place of synthetic dyes, and pharmaceutical and cosmetic formulators. Most Indian output is sold as 95% curcuminoid powder to formulators and exporters, so buyers judge a plant on assay consistency, residual solvent levels and batch documentation. A unit close to turmeric growing areas such as Erode, Sangli, Nizamabad or Meghalaya buys rhizomes cheaper and can also sell turmeric oil and spent turmeric as by-products.

Sales are typically made to nutraceutical and dietary supplement makers; natural food colour blenders; food, dairy and beverage processors; pharmaceutical and Ayurvedic formulators; cosmetic and personal care makers; and export traders of plant extracts.

Because demand and competition vary from one district to the next, the market section of a full report is prepared for the promoter's chosen location, with a list of existing manufacturers.

4 Manufacturing process

Production of curcumin follows five main steps, from grinding to drying. The flow chart shows how material moves through the plant.



Process flow for curcumin

- 1 Grinding.** Dried turmeric is ground to coarse powder.
- 2 Extraction.** Solvent extracts the colour and curcumin.
- 3 Concentration.** Solvent is recovered under vacuum to leave oleoresin.
- 4 Crystallisation.** Curcumin is crystallised out of the oleoresin.
- 5 Drying.** Crystals are dried, tested for purity and packed.

5 Raw materials

The plant uses turmeric and solvents. Raw material purchases in Year 3 are estimated at ₹310.43 lakh, which is 50.7% of sales. The split by material is shown below.

Raw material	Share of cost	Year 3 cost (₹ lakh)
Turmeric	80.0%	248.34
Solvents	20.0%	62.09
Total raw materials	100.0%	310.43

6 Plant and machinery

Plant and machinery accounts for ₹135.00 lakh of the project cost. The extractors takes the largest share, and the other items and their indicative costs are listed below.

Machinery and equipment	Indicative cost (₹ lakh)
Grinder	13.50
Extractors	47.25
Solvent recovery	27.00
Crystalliser	20.25
Dryer	13.50
Lab	13.50
Total plant and machinery	135.00

7 Land, building and utilities

The model includes land and site development of ₹27.38 lakh and building and civil works of ₹71.62 lakh, covering the production shed, raw material and finished goods stores, and an office. Other fixed assets such as electrification, furniture, laboratory equipment and a DG set add ₹23.40 lakh.

Utilities in Year 3 cost ₹32.27 lakh for power and fuel, or 5.3% of sales. The plant also needs a reliable water supply for cleaning and domestic use, and for the process where required.

8 Manpower

The unit employs 19 people. Wages and salaries come to ₹41.40 lakh in Year 1 and are assumed to rise by 5% a year.

Category	Number	Monthly wage (₹)	Annual cost (₹ lakh)
Management, supervision and administration	3	30,500	10.98
Skilled workers and operators	7	19,500	16.38
Semi-skilled and unskilled workers	9	13,000	14.04
Total (Year 1)	19		41.40

9 Licences and approvals

A unit of this kind typically needs the following registrations and approvals. Requirements vary by state and by the exact product, so confirm them with the local authorities before applying.

- Udyam (MSME) registration
- GST registration
- Consent to establish and consent to operate from the State Pollution Control Board
- Factory licence or registration under the applicable labour law, where the workforce threshold applies
- Fire safety NOC, where required
- Trade licence from the local body
- FSSAI licence for manufacture of a food additive (curcumin, INS 100)
- Certificate of Registration as Exporter of Spices (CRES) from the Spices Board for export of spice products
- Purity and residual solvent limits per the JECFA specification for curcumin

10 Project cost and means of finance

The total cost of the project is ₹300.98 lakh. Fixed assets account for ₹267.73 lakh, and the balance covers preliminary and pre-operative expenses and the promoter's margin money for working capital. A contingency of 5% is provided on building and machinery.

Cost of project	₹ lakh
Land and site development	27.38
Building and civil works	71.62
Plant and machinery	135.00
Other fixed assets (electrification, furniture, lab equipment, DG set)	23.40
Contingencies	10.33
Preliminary and pre-operative expenses	6.69
Margin money for working capital	26.56
Total cost of project	300.98

Means of finance

The project is financed 75:25 between bank debt and the promoter's own funds. A term loan covers ₹225.74 lakh and the promoter brings in ₹75.24 lakh. Separately, a cash credit limit of ₹79.66 lakh finances 75% of the working capital requirement.

Source of funds	₹ lakh
Promoter's contribution (25%)	75.24
Term loan from bank (75%)	225.74
Total means of finance	300.98
<i>Cash credit limit for working capital (separate)</i>	<i>79.66</i>

11 Working capital

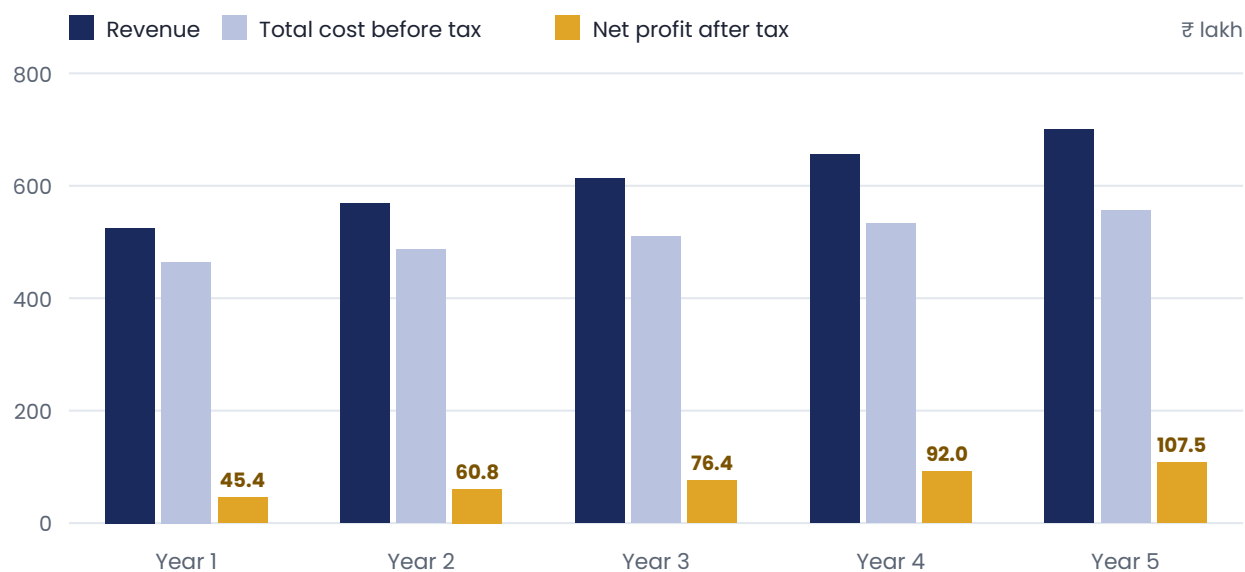
Working capital is worked out from holding periods: 45 days of raw material, 30 days of finished goods and 45 days of credit to customers, less 30 days of credit from suppliers. In Year 1 the requirement is ₹106.22 lakh. The bank funds ₹79.66 lakh through cash credit and the promoter's margin covers ₹26.56 lakh.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Raw material stock (45 days)	32.80	35.54	38.27	41.01	43.74
Work in progress (3 days)	2.75	2.97	3.19	3.41	3.63
Finished goods (30 days)	29.74	32.10	34.45	36.83	39.20
Trade receivables (45 days)	64.70	70.09	75.49	80.88	86.27
Total current assets	129.99	140.70	151.40	162.13	172.84
Less: trade creditors (30 days)	23.77	25.75	27.73	29.71	31.69
Working capital requirement	106.22	114.95	123.67	132.42	141.15

12 Projected profitability

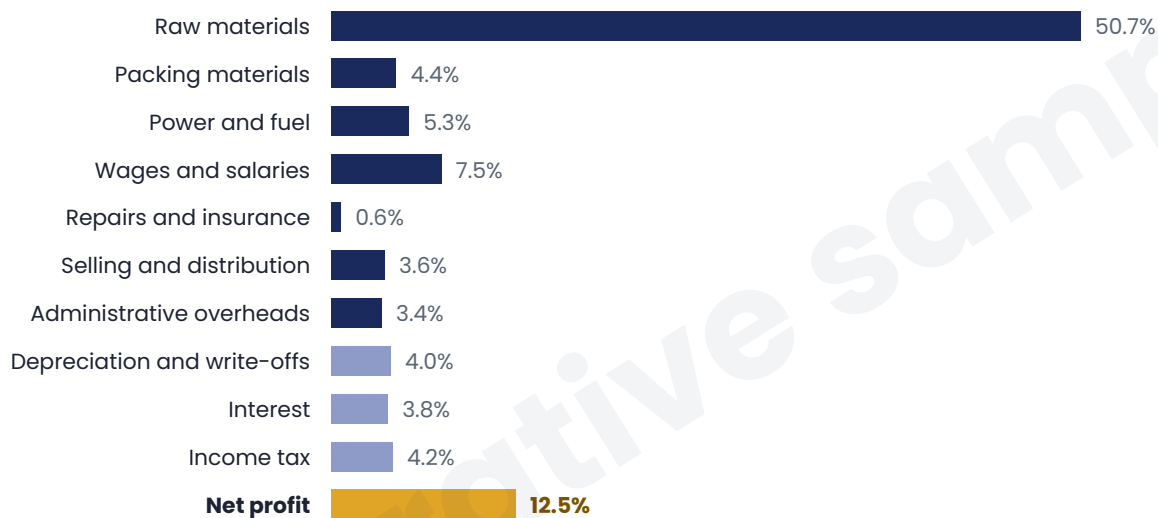
The unit is profitable from the first year, with a net profit of ₹45.40 lakh on sales of ₹524.81 lakh. By Year 5 sales reach ₹699.74 lakh and net profit ₹107.49 lakh, giving an average net margin of 12.3% across the projection.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Capacity utilisation (%)	60%	65%	70%	75%	80%
Revenue from operations	524.81	568.54	612.28	656.01	699.74
Raw materials consumed	266.08	288.26	310.43	332.60	354.78
Packing materials	23.07	24.99	26.92	28.84	30.76
Power and fuel	27.66	29.97	32.27	34.58	36.88
Wages and salaries	41.40	43.47	45.64	47.93	50.32
Repairs and maintenance	2.70	2.84	2.98	3.13	3.28
Insurance	0.96	0.96	0.96	0.96	0.96
Cost of production	361.87	390.49	419.20	448.04	476.98
Gross profit	162.94	178.05	193.08	207.97	222.76
Selling and distribution expenses	18.96	20.54	22.12	23.70	25.28
Administrative overheads	18.96	19.91	20.91	21.95	23.05
Operating profit (EBITDA)	125.02	137.60	150.05	162.32	174.43
Depreciation	31.12	26.95	23.35	20.24	17.57
Preliminary expenses written off	1.34	1.34	1.34	1.34	1.33
Interest on term loan	23.27	19.52	14.72	9.38	3.45
Interest on cash credit	8.76	8.76	8.76	8.76	8.76
Profit before tax	60.53	81.03	101.88	122.60	143.32
Income tax	15.13	20.26	25.47	30.65	35.83
Profit after tax	45.40	60.77	76.41	91.95	107.49



Revenue, total cost before tax and net profit after tax, ₹ lakh

Where each rupee of sales goes in Year 3



Each cost head as a percentage of Year 3 sales

13 Cash flow statement

Cash generated from profit and depreciation covers the term loan repayments in every year. The closing cash balance builds up to ₹247.27 lakh by the end of Year 5.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Sources of funds					
Promoter's contribution	75.24	–	–	–	–
Term loan from bank	225.74	–	–	–	–
Cash credit (working capital) from bank	79.66	–	–	–	–
Net profit after tax	45.40	60.77	76.41	91.95	107.49
Depreciation	31.12	26.95	23.35	20.24	17.57
Preliminary expenses written off	1.34	1.34	1.34	1.34	1.33
Increase in trade creditors	23.77	1.98	1.98	1.98	1.98
Total sources	482.27	91.04	103.08	115.51	128.37
Application of funds					
Fixed assets	267.73	–	–	–	–
Preliminary and pre-operative expenses	6.69	–	–	–	–
Increase in inventories	65.29	5.32	5.30	5.34	5.32
Increase in trade receivables	64.70	5.39	5.40	5.39	5.39
Repayment of term loan	20.17	43.63	48.45	53.78	59.71
Drawings	–	–	–	–	–
Total application	424.58	54.34	59.15	64.51	70.42
Net cash flow	57.69	36.70	43.93	51.00	57.95
Opening cash balance	–	57.69	94.39	138.32	189.32
Closing cash balance	57.69	94.39	138.32	189.32	247.27

14 Projected balance sheet

The projected balance sheet balances in every year. Net worth grows from ₹115.29 lakh at the end of Year 1 to ₹457.26 lakh at the end of Year 5, while the term loan outstanding falls from ₹205.57 lakh to nil.

As at year end (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Liabilities					
Promoter's capital	75.24	75.24	75.24	75.24	75.24
Reserves and surplus	45.40	106.17	182.58	274.53	382.02
Term loan	205.57	161.94	113.49	59.71	–
Cash credit from bank	79.66	79.66	79.66	79.66	79.66
Trade creditors	23.77	25.75	27.73	29.71	31.69
Total liabilities	429.64	448.76	478.70	518.85	568.61
Assets					
Gross fixed assets	267.73	267.73	267.73	267.73	267.73
Less: accumulated depreciation	(31.12)	(58.07)	(81.42)	(101.66)	(119.23)
Net fixed assets	236.61	209.66	186.31	166.07	148.50
Preliminary expenses not written off	5.35	4.01	2.67	1.33	–
Inventories	65.29	70.61	75.91	81.25	86.57
Trade receivables	64.70	70.09	75.49	80.88	86.27
Cash and bank balance	57.69	94.39	138.32	189.32	247.27
Total assets	429.64	448.76	478.70	518.85	568.61

15 Depreciation

Depreciation is charged on the written-down value method at Income Tax Act rates: 10% on building, 15% on plant and machinery and 10% on other fixed assets. Land is not depreciated, and preliminary expenses are written off over five years.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Building and civil works (cost ₹75.20 lakh, 10% WDV)					
Opening written-down value	75.20	67.68	60.91	54.82	49.34
Depreciation	7.52	6.77	6.09	5.48	4.93
Closing written-down value	67.68	60.91	54.82	49.34	44.41
Plant and machinery (cost ₹141.75 lakh, 15% WDV)					
Opening written-down value	141.75	120.49	102.42	87.06	74.00
Depreciation	21.26	18.07	15.36	13.06	11.10
Closing written-down value	120.49	102.42	87.06	74.00	62.90
Other fixed assets (cost ₹23.40 lakh, 10% WDV)					
Opening written-down value	23.40	21.06	18.95	17.05	15.35
Depreciation	2.34	2.11	1.90	1.70	1.54
Closing written-down value	21.06	18.95	17.05	15.35	13.81
Total depreciation	31.12	26.95	23.35	20.24	17.57
Preliminary expenses written off	1.34	1.34	1.34	1.34	1.33

16 Term loan repayment

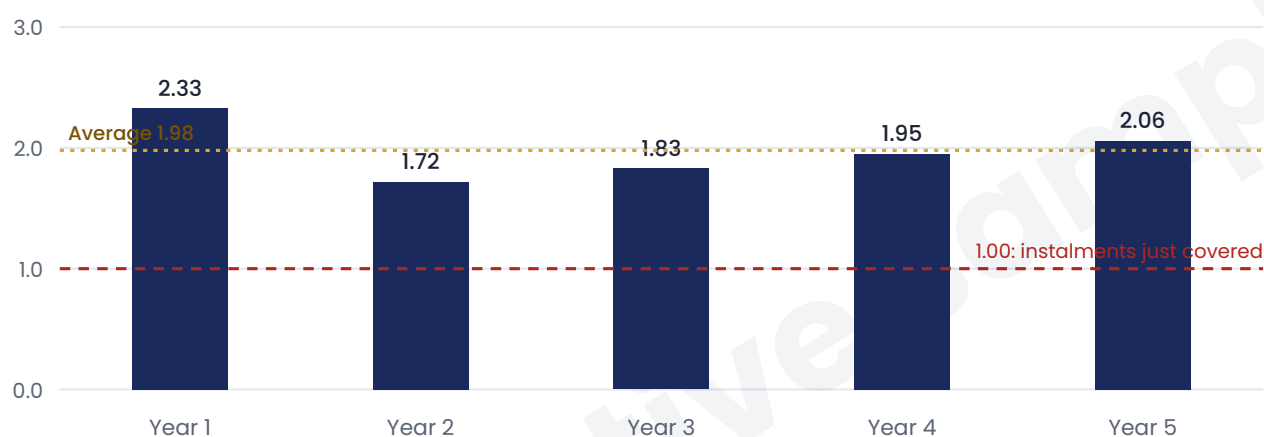
Repayment of the ₹225.74 lakh term loan starts after a moratorium of 6 months, during which interest at 10.5% is serviced. The loan is then cleared in 54 EMIs of ₹5,26,340 each, and the annexure gives the monthly schedule.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Opening balance	225.74	205.57	161.94	113.49	59.71
Interest	23.27	19.52	14.72	9.38	3.45
Principal repaid	20.17	43.63	48.45	53.78	59.71
Closing balance	205.57	161.94	113.49	59.71	—

17 Debt service coverage

Cash available for debt service covers the term loan instalments 1.98 times on average, and never less than 1.72 times (Year 2).

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Net profit after tax	45.40	60.77	76.41	91.95	107.49
Depreciation and write-offs	32.46	28.29	24.69	21.58	18.90
Interest on term loan	23.27	19.52	14.72	9.38	3.45
Total available for debt service (A)	101.13	108.58	115.82	122.91	129.84
Principal repayment	20.17	43.63	48.45	53.78	59.71
Interest on term loan	23.27	19.52	14.72	9.38	3.45
Total debt service (B)	43.44	63.15	63.17	63.16	63.16
DSCR (A / B)	2.33	1.72	1.83	1.95	2.06

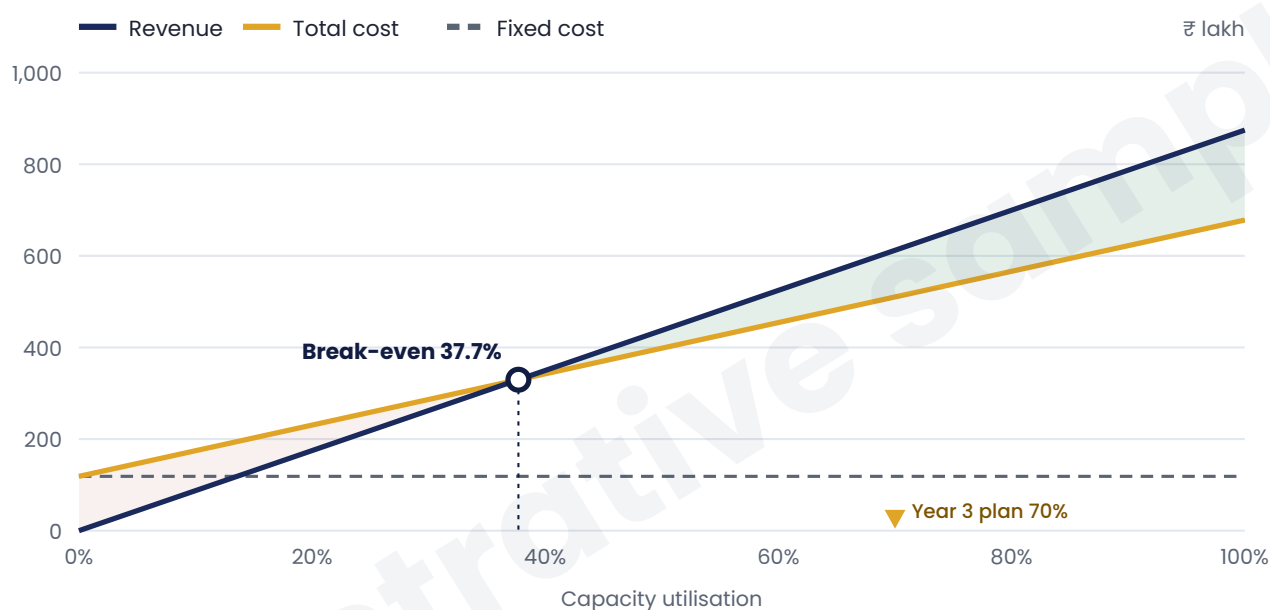


DSCR by year. A ratio above 1.00 means cash accruals cover the term loan instalments.

18 Break-even analysis

The unit needs to run at 37.7% of capacity to break even in Year 3, well below the 70% assumed for that year. Cash break-even, which excludes depreciation and write-offs, is 29.8%.

Particulars (₹ lakh)	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Revenue from operations	524.81	568.54	612.28	656.01	699.74
Variable costs	335.77	363.76	391.74	419.72	447.70
Contribution	189.04	204.78	220.54	236.29	252.04
Fixed costs (incl. depreciation and interest)	128.51	123.75	118.66	113.69	108.72
Break-even as % of installed capacity	40.8	39.3	37.7	36.1	34.5
Cash break-even as % of installed capacity	30.5	30.3	29.8	29.2	28.5
Break-even sales	356.77	343.57	329.43	315.64	301.84



Break-even chart at Year 3 prices and costs, scaled to full capacity. Shaded areas show the loss zone (left) and profit zone (right).

19 Financial ratios

Liquidity and leverage improve over the projection. The current ratio stays at or above 1.81, while debt-equity drops from 1.78 to zero as the term loan is repaid.

Ratio	Year 1 FY 2027-28	Year 2 FY 2028-29	Year 3 FY 2029-30	Year 4 FY 2030-31	Year 5 FY 2031-32
Current ratio	1.81	2.23	2.70	3.21	3.77
Quick ratio	1.18	1.56	1.99	2.47	3.00
Debt-equity ratio (term loan / net worth)	1.78	0.91	0.44	0.17	0.00
Total outside liabilities / net worth	2.68	1.51	0.87	0.49	0.24
Interest coverage ratio	2.89	3.87	5.34	7.76	12.74
DSCR	2.33	1.72	1.83	1.95	2.06
Gross profit margin (%)	31.0	31.3	31.5	31.7	31.8
Operating profit (EBITDA) margin (%)	23.8	24.2	24.5	24.7	24.9
Net profit margin (%)	8.7	10.7	12.5	14.0	15.4
Return on capital employed (%)	23.1	26.1	28.0	28.9	29.0
Break-even (% of installed capacity)	40.8	39.3	37.7	36.1	34.5

20 Key assumptions

- Commercial production starts in April 2027, and all assets are in use from the first year.
- Capacity utilisation of 60% in Year 1, rising to 80% by Year 5, over 300 working days a year.
- Selling price of ₹3,940 per kg, excluding GST, held constant through the projection.
- Raw materials at 50.7% of sales, packing materials at 4.4%, power and fuel at 5.3%, and selling and distribution at 3.6%.
- Wages and salaries rise by 5% a year; repairs and administrative overheads rise by 5% a year.
- Working capital based on 45 days of raw material, 3 days of work in progress, 30 days of finished goods and 45 days of receivables, less 30 days of creditors.
- Term loan at 10.5% interest with a 6-month moratorium and 54 monthly instalments; cash credit at 11% on 75% of the working capital requirement.
- Depreciation on the written-down value method at Income Tax Act rates; income tax at a flat 25% of profit for simplicity.
- Contingency of 5% on building and machinery; preliminary and pre-operative expenses written off over five years.
- All amounts in ₹ lakh unless stated otherwise, excluding GST.

21 Conclusion

The model shows that a curcumin unit sized at 74 kg per day can be financed 75:25 by a bank and its promoter, service its loan with an average DSCR of 1.98, and return about 25.4% a year on a project cost of ₹300.98 lakh. These are sample figures. A real project needs a report built on its own site, quotations and market.

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A Annexure: monthly loan repayment schedule

Term loan of ₹225.74 lakh at 10.5% a year. Amounts in ₹ lakh.

No.	Month	Opening balance	Interest	Principal	Instalment	Closing balance
1	Apr 2027	225.74	1.98	–	1.98	225.74
2	May 2027	225.74	1.98	–	1.98	225.74
3	Jun 2027	225.74	1.98	–	1.98	225.74
4	Jul 2027	225.74	1.98	–	1.98	225.74
5	Aug 2027	225.74	1.98	–	1.98	225.74
6	Sep 2027	225.74	1.98	–	1.98	225.74
7	Oct 2027	225.74	1.98	3.29	5.26	222.45
8	Nov 2027	222.45	1.95	3.32	5.26	219.13
9	Dec 2027	219.13	1.92	3.35	5.26	215.79
10	Jan 2028	215.79	1.89	3.38	5.26	212.41
11	Feb 2028	212.41	1.86	3.40	5.26	209.01
12	Mar 2028	209.01	1.83	3.43	5.26	205.57
13	Apr 2028	205.57	1.80	3.46	5.26	202.11
14	May 2028	202.11	1.77	3.49	5.26	198.61
15	Jun 2028	198.61	1.74	3.53	5.26	195.09
16	Jul 2028	195.09	1.71	3.56	5.26	191.53
17	Aug 2028	191.53	1.68	3.59	5.26	187.95
18	Sep 2028	187.95	1.64	3.62	5.26	184.33
19	Oct 2028	184.33	1.61	3.65	5.26	180.68
20	Nov 2028	180.68	1.58	3.68	5.26	176.99
21	Dec 2028	176.99	1.55	3.71	5.26	173.28
22	Jan 2029	173.28	1.52	3.75	5.26	169.53
23	Feb 2029	169.53	1.48	3.78	5.26	165.75
24	Mar 2029	165.75	1.45	3.81	5.26	161.94
25	Apr 2029	161.94	1.42	3.85	5.26	158.09
26	May 2029	158.09	1.38	3.88	5.26	154.21
27	Jun 2029	154.21	1.35	3.91	5.26	150.30
28	Jul 2029	150.30	1.32	3.95	5.26	146.35
29	Aug 2029	146.35	1.28	3.98	5.26	142.37
30	Sep 2029	142.37	1.25	4.02	5.26	138.35
31	Oct 2029	138.35	1.21	4.05	5.26	134.30
32	Nov 2029	134.30	1.18	4.09	5.26	130.21
33	Dec 2029	130.21	1.14	4.12	5.26	126.08
34	Jan 2030	126.08	1.10	4.16	5.26	121.92
35	Feb 2030	121.92	1.07	4.20	5.26	117.73
36	Mar 2030	117.73	1.03	4.23	5.26	113.49
37	Apr 2030	113.49	0.99	4.27	5.26	109.22
38	May 2030	109.22	0.96	4.31	5.26	104.92
39	Jun 2030	104.92	0.92	4.35	5.26	100.57

No.	Month	Opening balance	Interest	Principal	Instalment	Closing balance
40	Jul 2030	100.57	0.88	4.38	5.26	96.19
41	Aug 2030	96.19	0.84	4.42	5.26	91.77
42	Sep 2030	91.77	0.80	4.46	5.26	87.30
43	Oct 2030	87.30	0.76	4.50	5.26	82.81
44	Nov 2030	82.81	0.72	4.54	5.26	78.27
45	Dec 2030	78.27	0.68	4.58	5.26	73.69
46	Jan 2031	73.69	0.64	4.62	5.26	69.07
47	Feb 2031	69.07	0.60	4.66	5.26	64.41
48	Mar 2031	64.41	0.56	4.70	5.26	59.71
49	Apr 2031	59.71	0.52	4.74	5.26	54.97
50	May 2031	54.97	0.48	4.78	5.26	50.19
51	Jun 2031	50.19	0.44	4.82	5.26	45.36
52	Jul 2031	45.36	0.40	4.87	5.26	40.50
53	Aug 2031	40.50	0.35	4.91	5.26	35.59
54	Sep 2031	35.59	0.31	4.95	5.26	30.64
55	Oct 2031	30.64	0.27	5.00	5.26	25.64
56	Nov 2031	25.64	0.22	5.04	5.26	20.60
57	Dec 2031	20.60	0.18	5.08	5.26	15.52
58	Jan 2032	15.52	0.14	5.13	5.26	10.39
59	Feb 2032	10.39	0.09	5.17	5.26	5.22
60	Mar 2032	5.22	0.05	5.22	5.26	–