

# Marble Tiles

PRODUCT CODE	: 29131 and 29132
QUALITY AND STANDARDS	: IS 33161 (Revision 1974)
MONTH AND YEAR OF PREPARATION	: January, 2003
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## INTRODUCTION

Polished marble tiles manufactured out of natural marble blocks of different colours is well known as one of the most beautiful decorative and reliable building material. Marble tiles are used as building material in hotels, hospitals and airport terminals, architectural use for interior, exterior and floor decoration in building, decorative memorial stone, high precision instrument beds and surface plates. Besides these, marble is in demand for table, craftwork for interior decoration, name plates etc.

## MARKET POTENTIAL

The polished marble tiles are having good demand in India and abroad. In developing countries like India, the construction work of hotels, airport, railway stations, hospitals etc. is in great upsurge. The people have developed attraction for marble tiles due to its

hardness, durability, smoothness and finish.

Realizing the potential of polished marble tiles, to earn substantial foreign exchange, the Govt. of India included the marble tiles industry in its list of export thrust sector. The major importers of polished marble tiles are the United State of America, United Kingdom (U.K.), Japan, Germany, Singapore and Canada. India's main competitors in the international market are China, South Korea, Brazil etc.

## BASIS AND PRESUMPTIONS

With 300 working days in a year and of 8 hrs. shift per day, the unit is likely to achieve 80% of its installed capacity.

The unit shall achieve full capacity in 3 years.

Labour wages has been taken according to the Minimum Wages Act of the State Government.

*Interest Rate*

Fixed capital	14%
Working Capital	14%
Margin money	25%
Estimate life of the project	10 years
Repayment of loan	7 years.

Average cost of land has been considered as per the rate of SIDC in industrial areas.

**IMPLEMENTATION SCHEDULE**

Sl. No.	Activity	Period
1.	Preparing of project report	1 month
2.	Selection of site	1 month
3.	Registration of SSI	1 Week
4.	Availability of finance/loan	1 month
5.	Construction of building	1 month
6.	Machinery procurement, erection and commissioning	3 months
7.	Trial Production	1 week
8.	Recruitment of labour	2 weeks

**TECHNICAL ASPECTS****Process of Manufacture**

Marble slabs of required thickness procured from block sawing machine are fed in the polishing machine for surface polishing and cut into the

desired dimensions of tiles with the help of edge cutting machine. Thereafter, the tiles are sorted out size wise and packed.

**Quality Control and Standards**  
IS 33161 (Revision 1974).

**Production Capacity (per annum)**

Quantity	: 112500 Nos. tiles size 6"x12"
	62500 Nos. tiles, size 24"x24"
	112500 Nos. tiles, size 12" x 12"

Value : Rs. 68, 62, 500.

Motive Power 30 kW.

**Pollution Control**

Water treatment plant is required for recirculation of the water.

**FINANCIAL ASPECTS****A. Fixed Capital**

(i) Land and Building	(Rs.)
Land: About 500 sq. meter cost will be @ Rs. 1000 per sq.mtr.	5,00,000
Building: Workshed: 12 x 10 sq. mtr. @ Rs. 3000 sq.mtr.	3,60,000
Office Stores etc.: 100 sq.mtr. @ Rs. 4000 sq. mtr.	4,00,000
<b>Total</b>	<b>12,60,000</b>

**(ii) Machinery and Equipments**

Particulars	Indigenous/ Imported	No.	Cost (Rs.)
Automatic marble cutting machine with 13 HP Motor and other accessories	Indigenous	1	4,15,000
Edge cutting machine for edge cutting of the tiles with 10.5 HP motor and other accessories	"	1	3,75,000
Automatic polishing machine with 5 HP motor and other accessories	"	1	2,00,000
Overhead water tank cap 2500 Ltr. With water pump.	"	1	25,000
<b>Total</b>			<b>10,15,000</b>

Particulars	Indigenous/ Imported	No.	Cost (Rs.)
Cost of power connection including transformer 30 KW			80,000
Electrification, transformer and foundation etc@ 10%			1,01,500
Cost of fixture and furniture			50,000
(iii) Pre-operative expenses			50,000
	Total		12,96,500

## B. Working Capital (Per Month)

### (i) Personnel (per month)

Description	Nos.	Salary/ month	(Rs.)
Manager-cum-supervisor	1	8,000	8,000
Typist-cum-clerk	1	4,000	4,000
Accountant	1	4,000	4,000
Sales-man	1	4,000	4,000
Skilled workers	2	4,000	8,000
Un-skilled workers	4	2,500	10,000
Peon	1	2,000	2,000
Watchman	1	2,000	2,000
+ 15% perquisites			6,300
	Total		48,000

### (ii) Raw Material (per month)

Description	Indige- nous/	Qty. Sq. m.	Rate (Rs.)	Amount (Rs.)
Marble Slab	Ind	1600	135 sq.m.	2,16,000
Diamond saw and Spares	Ind.	L.S.		50,000
Lubricants, chemical and Misc.	Ind.	L.S.		25,000
	Total			2,91,000

(iii) Utilities (per month)	(Rs.)
Electricity	L.S. 16000
Water	L.S. 1,000
Total	17,000

(iv) Other Contingent Expenses (per month) (Rs.)	(Rs.)
Postage and Stationery	800
Telephone	1,000

### Other Contingent Expenses (per month) (Rs.)

Repair and Maintenance	1000
Transportation charges	5,000
Insurance	5,000
Sales expenses	10,000
Consumable Stores	800
Advertisement and Publicity	2000
Misc. Expenses	5000
Total	30,600

### (v) Total Recurring Expenditure (per month) (Rs.)

Salaries and wages	48,300
Raw materials	2,91,000
Utilities	17,000
Misc. expenses	30,600
Total	3,86,900

### (vi) Total Working Capital (Rs.)

(On three months basis)	11,60,700
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## C. Total Capital Investment

Total fixed investment	Rs. 25,56,500
Total working capital	Rs. 11,60,700
Total	Rs. 37,17,200
or Say	Rs. 37,17,000

## FINANCIAL ANALYSIS

### (1) Cost of Production (per annum) (Rs.)

Total recurring cost	46,42,800
Depreciation on building @ 5%	38,000
Depreciation on machinery and equipment @ 10%	1,19,650
Depreciation on furniture and fixtures @ 20%	10,000

Cost of Production (per annum)	(Rs.)
Interest on total investment @ 14%	5,20,380
<b>Total</b>	<b>53,30,830</b>

(2)	Turnover (per year)
1,12,500 Nos. tiles of size 6"x12" @ Rs.12 per tile	13,50,000
1,12,500 Nos. tiles of size 12"x12" @ Rs.24 per tile	27,00,000
62,500 Nos. of tiles of size 24"x24" @ Rs.45 per tile	28,12,500
<b>Total</b>	<b>68,62,500</b>

## (3) Net Profit (per year)

$$\begin{aligned}
 &= \text{Sales} - \text{cost of production} \\
 &= \text{Rs. } 68,62,500 - 53,30,830 \\
 &= \text{Rs. } 15,31,670
 \end{aligned}$$

## (4) Net Profit Ratio

$$\begin{aligned}
 &= \frac{\text{Net profit per year} \times 100}{\text{Turn over per year}} \\
 &= \frac{15,31,670 \times 100}{68,62,500} \\
 &= 22\%
 \end{aligned}$$

## (5) Rate of Return

$$\begin{aligned}
 &= \frac{\text{Net Profit per year} \times 100}{\text{Total Investment}} \\
 &= \frac{15,31,670 \times 100}{37,17,000} \\
 &= 41\%
 \end{aligned}$$

## (6) Break-even Point

Fixed Cost (per annum)	(Rs.)
Depreciation on machinery 10%	1,19,650
Depreciation on building 5%	38,000
Depreciation on fixture and furniture 20%	10,000
Interest on Total Investment @14%	5,20,380
40% of salary and wages	2,31,840
40% of other Contingent expenses (excluding insurance)	1,22,880
Insurance	60,000
<b>Total</b>	<b>11,02,750</b>

$$\begin{aligned}
 \text{B.E.P.} &= \frac{\text{Fixed Cost} \times 100}{\text{Fixed cost} + \text{Net Profit}} \\
 &= \frac{11,02,750 \times 100}{11,02,750 + 15,31,670} \\
 &= 41.9\%
 \end{aligned}$$

## Addresses of Machinery Suppliers

1. M/s. M.I. Shah and Co.  
(Machinery) Pvt. Ltd.,  
Lotus House, 5th Floor, 33, A,  
New Marine Line,  
Mumbai-400020
2. M/s. Veenedyt  
3, Girish, 224, Katni Road,  
Matunga (West),  
Mumbai-400016
3. M/s. Rajasthan Udyog  
13, Heavy Indl. Area,  
Jodhpur.
4. M/s. Karam Chand Mansion  
Barrack Road,  
Behind Metro Cinema,  
Mumbai-400020.
5. M/s. Grant Tools Pvt.Ltd.  
53, 19th Main, 25th Cross,  
5 Block Rajaji Nagar,  
Bangalore-560010.
6. M/s. Surfix Polix  
2-430, A, Naraina Village,  
New Delhi-110028.
7. M/s. Ved Saso Mechanical  
Opp. Lohil Machine Tools,  
Panki Ind. Area, Kanpur.

## Raw Material Suppliers

1. M/s. Andhra Pradesh Mining  
Corporation  
Panjagutta,  
Hyderabad-500024
2. M/s. Maharashtra Steel Mining  
Corporation  
Abbyanakar Nagar,  
Nagpur-440010