



Strengthening Domestic Manufacturing and Import Reduction of
GUMMED PAPER TAPE
HS Code 48114100,48114190,48114120

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INDEX

Chapter No.	Particular	Page No.
1	Title of the Project Profile	1
2	Commercial details	2-3
3	Technical details	4-9
4	Project Report	10-14
5	Schemes and consultancy services (Suggestions –Roadmap)	15
	Consultation & references	16
	Annexure	

PROJECT PROFILE ON GUMMED PAPER TAPE

I.HSN Code (Gummed Paper Tape): Parent Code: 4811

48114100: Self Adhesive Paper and Paper Board

48114190: Self adhesive paper and paperboard, surface coloured, surface decorated or printed, in rolls or in square or rectangular sheets, of any size (excl. of a width of less than equals to 10 cm coated with unvulcanised natural or synthetic rubber and goods of heading 4810)

48114120:Self adhesive paper and paperboard, surface colored, surface decorated or printed, in strips, rolls or sheets of a width of less than equals to 10 cm, coated with unvulcanised natural or synthetic rubber.

II. NIC Code: 17099

III. Clusters already existing on the product if any- Nil

IV. **Possibility to create/establish clusters on the product-** The products is being manufactured staggered in India.

V. Probable areas of districts where the products/product manufacturing or project can be established-

- Indore- M.P.
- Ahmedabad- Gujrat.
- Mandideep(Raisen)- M.P.
- Mumbai- Maharastra.
- Thane- Maharastra.
- Meerut- U.P.
- Alwar, Rajasthan.
- Bangaluru, Karnataka
- Baddi-Himachal Pradesh
- Kala Amb-Himachal Pradesh

VI. **No. of industries registered as MSME/available in the Manufacturing of the Product-** NA

VII. **No. of industries available in large scale Industries- NA**

VIII. **Data about imports of this products for the past three years-
Value (In Rs. Crores)**

2017-18	2018-19	2019-20
79.102836	83.722737	78.813375

IX. **Data available for the exports well against this products for the past two years-
Value (In Rs. Crores)**

X.

2017-18	2018-19
44.498777	55.701962

X. **Scope for the number of units /number of years can be established further-08**
Unit

XI. **The demand in the Domestic Market-**

The gummed tape market will witness a notable growth pace over the assessment period. Typical applications for gummed tapes start from the e-commerce sectors to the pharmaceuticals sector. Rising demand for corrugated packaging in the logistics and shipping sector is boosting the sales of gummed tapes across different regions. As water-activated gummed tapes form mono-material and ensure tamper-evident packaging, their use for the sealing of corrugated boxes is expected to rapidly increase during the forecast period. Furthermore, rapid industrialization and cross-border trade boost the sales of global gummed tapes. Demand for eco-friendly and recyclable packaging solutions are another factor propelling growth of the gummed tapes market.

XII. **Demand of the Export Market-**

In terms of sales and market growth rate, East and South Asia are the fastest growing regions in the global gummed tapes market. The gummed tapes market in East Asia is projected to register an impressive CAGR during the forecast period of 2019-2029. The demand for gummed tapes is consistently increasing from shipping and logistics industries, as these tapes offer high adhesive strength for corrugated box packaging and damage-free transportation of products. As per FMI analysis, shipping and logistics industries account for a majority of the market share in 2019, and are expected to maintain their dominance by the end of 2029. Building & construction, electrical & electronics, and automotive industries are also expected to offer substantial prospects

for players in the gummed tapes export market. Global gummed tape market is expected to account for USD 1.62 Billion by 2027.(Chart-I) while registering this growth at a rate of 5.60% for the forecast period of 2020 to 2027. Gummed tape market report analyses the growth, which is currently being growing due to the easy accessibility of raw materials and cheap labor.



Chart-I

The countries covered in the gummed tape market report are the U.S., Canada and Mexico in North America, Germany, France, U.K., Netherlands, Switzerland, Belgium, Russia, Italy, Spain, Turkey, Rest of Europe in Europe, China, Japan, India, South Korea, Singapore, Malaysia, Australia, Thailand, Indonesia, Philippines, Rest of Asia-Pacific (APAC) in the Asia-Pacific (APAC), Saudi Arabia, U.A.E, Israel, Egypt, South Africa, Rest of Middle East and Africa (MEA) as a part of Middle East and Africa (MEA), Brazil, Argentina and Rest of South America as part of South America.

Technical Details

I. INTRODUCTION - Paper Gummed tape comes under Packaging sector. Gummed Paper Tapes afford security against pilferage and tamper as it cannot be peeled off. These tapes are easy to stick and give attractive look to the cartons and packages. These tapes can be printed attractively in any color of choice and after an excellent advertising value, identification and individuality. Almost all the raw materials used for the manufacture of gummed tapes i.e. Kraft paper, adhesives, Cores, printing inks and other allied materials are available indigenously.

II. PRODUCTS AND ITS APPLICATIONS/BENEFITS

Variety of colored, pattern papers with adhesive on one side for easy application. Coated or uncoated book paper, gummed on one side, used for stickers, labels, stamps, seals, and tapes. Gummed paper tape is also used for ballpoint pens, cards, charcoals, copying paper, crayons, disposable pens, envelopes, fibre tipped pens, fountain pens, graphic stationery, gummed paper, ink pads, office machinery paper, pastels, pencils, pens, perforated papers, postcards, print cartridges, printed paper, propelling pencils, refillable pens, ribbons, rolling ball pens, rubber stamps, self-adhesive papers, stationery sets, and typewriter ribbons.

The benefits of gummed paper tape are:

1. **Strength:** The natural glue adhesive is moistened upon application, creating a complete bond with the carton. This is because the water-activated adhesives penetrate into the liner of the carton, so the tape becomes part of the box.
2. **Automotive:** Due to the weight of most automotive parts, shipping to customers in a safe and secure manner can be a challenge. But becomes a lot easier when reinforced gummed paper tape is involved. With the extra added strength that the reinforced version supplies, engines, hubcaps, transmissions and other automotive parts can be transported worry free.
3. **Cost-effective:** Gummed paper tape is a cost-effective method of sealing your cartons. Where the tape creates a permanent bond with the carton, only one strip is needed for a safe and secure seal. Unlike other commonly used tapes, one strip is rarely enough to seal a carton with confidence that it'll stay closed.
4. **Eco-friendly:** Being made from renewable natural resources means that gummed paper tape is 100% recyclable. Many companies that use gummed paper tape find it boosts green credibility with customers as well as helping towards keeping the environment green.
5. **Temperature-tolerant:** Gummed Paper Tape has incredible durability and ability to withstand varying temperatures (both hot and cold). Gummed paper tape can also perform fantastically in dusty or dirty environments.

END Users of gummed paper tapes are: Paper gummed tape is being replaced by BOPP adhesive tape. However paper gummed tape with continue in use due to low cost, ease of application and availability. The growth rate of the consuming industries is very high compare to other sectors of economy. Major end users are:

- Shipping & Logistics
- Building & Construction
- Food & Beverages
- Electrical & Electronics
- Automotive
- Healthcare & Hygiene
- Metalworking
- Oil & Gas
- General Industries

Applications:

The gummed paper tape plays an important role in the field of packaging industries. The demand of tapes is increasing with the increase in industrialization and urbanization. The consuming industries like pharmaceuticals, cosmetics, foods processing etc. are growing faster in the recent years. With more and more sophistication being introduced in packaging and trend for displaying and advertising contents on package the demand for gummed paper tape is likely to increase considerably in future for

- Box & Carton Sealing
- Splicing
- Others

III. GOVERNING INDIAN STANDARD:

1. IS : 4185. 1989 {ADHESIVE PERFORMANCE TEST}
2. IS 1060 Methods of sampling and (Part 1) : 1966 test for paper and allied products : Part 1 (revised)
3. IS 1397: 1967 Kraft paper (first revision)
4. IS 1398: 1982 Packing paper, waterproof, bitumen laminated (second revision)
5. IS : 10106 (Part 3/Set 2) – 1986

IV. GOVERNING INTERNATIONAL STANDARD FOR QUALITY:

ASTM Standards

1. D685 Practice for Conditioning Paper and Paper Products for Testing
2. D828 Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus
3. D996 Terminology of Packaging and Distribution Environments
4. D1974/D1974M Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
5. D3951 Practice for Commercial Packaging.
6. D5749-17, Standard Specification for Reinforced and Plain Gummed Tape for Sealing and Securing,
7. D1968 – 19 Standard Terminology Relating to Paper and Paper Products,
8. D5570 / D5570M - 10(2015)-Standard Test Method for Water Resistance of Tape and Adhesives Used as Box Closure.

V. DESIRED QUALIFICATION FOR PROMOTER

Bachelor of Science in Paper Science and Engineering or Master Degree in Paper Engineering or bachelor or master degree in chemicals.

VI. RAW MATERIAL REQUIREMENTS

The main raw materials required for manufacture of Gummed Paper Tape are Kraft paper in rolls, Animal Glue of standard quality, Glycerin preservatives and other miscellaneous chemicals, Plastic cores, Bituminized packaging paper reels , labels etc.

VII. MANUFACTURING PROCESS:

Kraft paper in reels is coated uniformly in one side with a water soluble adhesive composition on a coating machine. It is dried in a drying chamber and wound. The coated rolls are then slit into various sizes (width and length). If required, printing is done on the uncoated side of the gummed tape reels.

Flow Chart:

Assembling ->	Fixing of Various-> Components	Wiring ->	
Picketing ←	Function testing←	Printing←	Composition
-> Sales			

VIII. Quality Parameters of the Product:

- Tensile Strength and Percentage Elongation and Energy at Break of paper.
- Bond/Glue Adhesive Property/performance.
- Temperature resistance property.
- Smoothness.
- Size of the paper Roll.
- Pressure Sensitivity.
- Adhesive Content in Gummed Paper Tape used as a box closure.
- Alkalinity of Paper.
- Moisture Absorption of Paper.

IX. Details of the product license to be obtained:

- Udhyam Registration.
- Firm Registration.
- Factory License.
- License/NOC of Pollution Control Board. of the State.

X. Equipments required for the manufacturing of the product:

Sr. No.	Particulars
1.	Glue preparation tank
2.	Complete coating & rewinding machine size 40" with rollers and adjustments, glue coating stainless steel tank with mild steel jacket, main drive with V-Belts and chain, extra mild steel core for the rewinding unit.
3.	Complete drying chamber
4.	Complete slitting, Printed rewinding unit equipped with necessary steel rolls for printing, reduction drive etc.

Test Facilities required for the product.

- Tensile testing machine- 0.5 MT Cap.
- Glass wares & equipments for chemical testing.
- Oven.
- Gloss meter.
- Measuring Scale.
- Pressure Gauge.
- Digital pH Meter.
- Muffle Furnace.
- Water Bath.
- U.V. Spectrophotometer

XII. The technology existing in the manufacturing of the product-As above at point No. X.

XIII. Suggested modern technology for implementation or technology available in market-

- Kraft Paper Adhesive Tape Coating Machine/Gummed Paper Tape Making Machines fully automatic are now days available in India.
- Gummed paper tape dispensers are also available now days in India.
- Rotogravure Printing Machine.

XIV. Covering Raw Material Standards/international Standards-

- **ASTM D5749 – 17-** This specification covers plain and reinforced paper gummed adhesive tapes suitable for securing and banding paper products and closing fiberboard boxes.
- **IS 1397: 1967-** Kraft paper (first revision)

XV. MANPOWER REQUIREMENT/Month

Sr. No.	Particulars	Nos.	Salary
1	Production Manager	1	10000
2	Production Supervisor	1	8000
3	Accountant	1	10000
4	Office boy	1	8000
5	Peon	1	4000
6	Sales man	1	7000
7	Skilled worker	4	30000
8	Unskilled Worker	6	24000
9	Watchman	1	6000
	Total	17	107000

XVI. IMPLEMENTATION SCHEDULE

Sr. No.	Particulars	Time Period
1	The Time requirement for preparation of Project report	One month
2	Time requirement for selection of Site	One month
3	Time required for registration as Small Scale Unit	One Week
4	Time required for acquiring the loan Machinery procurement, erection and commissioning	Three Months
5	Recruitment of labourer etc.	One month
6	Trial runs	One Month

XVII. COST OF PROJECT

Sr. No.	Particulars	Rs. In lakhs
1	Land and Building	25.00
2	Plant and Machinery	7.55
3	Miscellaneous Assets	2.50
4	P & P Expenses	2.00
5	Contingencies @ 10% on land and building and plant and machinery	3.26
6	Working capital margin	5.03
	Total	45.34

XVIII. MEANS OF FINANCE

Sr. No.	Particulars	Rs. (lakhs)
1	Promoter's contribution	13.6014
2	Bank Finance	31.7366
	Total	45.34

XIX. WORKING CAPITAL CALCULATION/per month

Sr. No.	Particulars	Rs. lakhs	Stock Period days	Promoter Margin	Margin Amt.	Bank Finance
1	Salaries and wages	0.68	30	1	0.68	-
2	Raw material and packaging material	3.75	30	0.5	1.875	1.875
3	Utilities	0.13	30	0.5	0.065	0.065
4	Debtors	6.02	30	0.4	2.408	3.612
	Total	10.58			5.028	

XX. LIST OF MACHINERY REQUIRED

Sr. No.	Particulars	Rs. lakhs
1	Glue preparation tank	1.90
2	Complete coating & rewinding machine size 40" with rollers and adjustments, glue coating stainless steel tank with mild steel jacket, main drive with V-Belts and chain, extra mild steel core for the rewinding unit.	3.50
3	Complete drying chamber	1.20
4	Complete slitting, Printed rewinding unit equipped with necessary steel rolls for printing, reduction drive etc.	0.95
	Total	7.55

XXI. MACHINES & EQUIPMENT SUPPLIERS/MANUFACTURERS

01. M/s. Ocean Rotoflex
Plot No. B-49, Zaveri Industrial Estate,
Kathwada GIDC, Kathwada Rd,
Ahmedabad, Gujarat.
02. M/s. Goldmann Automatics Pvt Limited
No. 510, Marathon Max, Mulund Goregaon,
Link Road, Mulund West,
Mumbai, Maharashtra.
03. M/s. Black & White Packaging Solutions
1/561 H PLOT NO.N -25, Sivakasi Cooperative Industrial Estate
Sivakasi, Virudhunaga, Tamil Nadu, 626124 India.
Phone No. 09171781515.
04. M/s. Wellman Machinery Company
Muragacha Post Office Jugberia Sodepur Madhyamgram Road - 700110 , Kolkata
West Bengal, India.
05. M/s. M. S. Enterprises
No. 5, D- 107, N. I. T., New Industrial Town, Faridabad - 121001, Haryana, India
Phone No. 08048600554.

XXII. RAW MATERIAL SUPPLIERS/MANUFACTURERS

1. M/s. R.S. Kraft Paper Limited
Address: UG-15, 564, City Plaza, Mahatma Gandhi Rd, Regal Square,
Nehru Park 2, Chhoti Gwaltoli, Indore, Madhya Pradesh 452001.
Phone: 0731 404 5693
02. M/s. PAPER TRADE
Address: 228, Starlit Tower, Y N Road, Opposite H O State Bank Of Indore, 29
Indore, Madhya Pradesh 452001, Phone: 094250 55003.

03. M/s. KALPATARU PAPERS LLP

Address: Sakar-9, Besides old Reserve Bank of India, Ashram Rd, near City Gold,
Muslim Society, Navrangpura, Ahmedabad, Gujarat 380009.
Phone: 079 2970 8089.

04. M/s. Malu Paper Mills Ltd.

Address: 4th Floor, Heera Plaza Near Telephone Exchange, Central Ave,
Nagpur Maharashtra 440002.
Phone: 0712 276 0308.

05. M/s. CHEMLINE INDIA LIMITED

Mr Satya Prakash Jha
D-9, F-1, Sarda Chamber-1, Central Market, Prashant Vihar, Rohini,
Delhi, Delhi, 110085, India. Phone : 08045802844.

06. M/s. Fine Flow Plastic Industries

No. 301, Almar Arcade, Marve Road, Orlem, Above Punjab National Bank
Near Borivali Biryani Centre, Malad West, Mumbai - 400064, Maharashtra, India
Phone No: 08049442113.

07. M/s. ASHU PLASTICS

Khasra No. 118, Sikhaida Road, Industrial Area, Near M/s Modinagar Rolls Limited,
Ghaziabad
Uttar Pradesh, 201204, India
Phone No: 08037301994,

08. M/s. NAVBHARAT INDUSTRIES

Flat No-1,Gokul Building, Gokhale Road, Dahanukar-Wadi, Kandivali,
West Mumbai - 400067, Maharashtra, India.
Mob : +(91) - 9819473195
Tel.No. : +(91) - (22) – 29671557

9. M/s. RAJ GELATINE INDUSTRIES
Shop No. 18, First Floor, Indra Market, Gill Road
Ludhiana [PIN:141003], Punjab, India,

10. M/s. IONIC CHEMICALS PVT. LTD.

201, 2nd Floor, Aggarwal City Mall, Plot No.-3, Near M2K Cinema, Pitampura, Delhi,
Delhi, 110034, India

Phone No: 0804580331

XXIII. PROFITABILITY CALCULATIONS:

Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
(A)	Sales Realization per annum	5418000	6192000	6966000	6966000	6966000
(B)	Cost of Production					
1	Raw material per annum	3150000	3600000	4050000	4050000	4050000
2	Utilities	105000	120000	135000	135000	135000
3	Salaries	816000	856800	897600	897600	897600
4	Repairs and maintenance	90000	110000	130000	130000	130000
5	Selling expenses (3% on sales value)	162540	185760	208980	208980	208980
6	Administrative Expenses (other expenses)	70000	77000	84000	91000	98000
	Total	4393540	4949560	5505580	5512580	5519580
(C)	Profit before interest & depreciation	1024460	1242440	1460420	1453420	1446420
	depreciation	488250	488250	488250	488250	488250
	Profit Before term loan and tax	536210	754190	972170	965170	958170
	Interest on term loan (11%)	331647.47	279282.08	209461.56	139641.04	69820.52
	Profit before tax	204562.53	474907.92	762708.44	825528.96	888349.48
	Tax (30%)	61368.759	142472.376	228812.532	247658.688	266504.844
	Total Profit	143193.771	332435.544	533895.908	577870.272	621844.636

XXIV .BREAKEVEN ANALYSIS

Fixed Cost (FC):	Rs. In lakhs
Wages & Salaries	8.16
Repairs & Maintenance	0.9
Depreciation	4.88
Admin. & General expenses	0.7
Interest on Term Loan	3.31
Total	17.95

Fixed Cost: 17.95

Profit After Tax: 1.43

$$\text{BEP} = \text{FC} \times 100 / \text{FC} + \text{P}$$

$$17.95 / 19.38 \times 70 / 100 \times 100$$

64.83%

XXV. DETAILS OF TESTING FACILITIES AVAILABLE IN INDIA

- MSME-TESTING CENTRES
- INDIAN INSTITUTE OF PACKAGING
- NATIONAL TEST HOUSE
- BUREAU OF INDIAN STANDARD
- IITs/NITs
- CSIR lab for paper products
- STATE GOVT. LABS
- PRIVATE NABL ACCREDITED LABS HAVING SCOPE OF TESTING OF PAPER AND PAPER PRODUCTS.
- National Institute of Designs.

XXVI. STATUTORY/ GOVERNMENT APPROVALS

There is no specific statutory requirement for production of paper gummed tape. However MSME & GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

XXVII. BACKWARD AND FORWARD INTEGRATION

There is little possibility of backward linkages in case of paper gummed tape of manufacturing. However as forward linkage promoter may think of going for BOPP tape, customized paper stickers, posters, re-enforced paper gummed tape etc.

XXVIII. TRAINING CENTERS/COURSES

For paper packaging products, training programs/courses conducted by Indian Institute of Packaging Mumbai/Delhi and its branches in the states may be looked into when required. Similarly training at National Institute of Design, Ahmedabad and its other branches may be contacted for attractive designs. For technical training promoter may also depend on machinery supplier. viz. Application filling / project report preparation, EDP, MDP, Skill Development, mentoring help can be taken /consultation from MSMETCs/MSMEDIs./DICs./Nationalized Banks.

XXIX. DETAILS OF AGENCIES WHO CAN PROVIDE GUIDANCE-

- INDIAN INSTITUTE OF PACKAGING.
- NATIONAL INSTITUTE OF DESIGN.
- MSME-DEVELOPMENT INSTITUTE/TESTING STATIONS.
- BUREU OF INDIAN STANDARD
- NATIONAL TEST HOUSE.
- CSIR LABORATORY.
- IITs/NITs.

XXX. SCHEMES AND CONSULTANCY SERVICES

1. Existing Schemes available and their details-

- Techno commercial consultancy
- Techno managerial consultancy
- Credit Linked Capital Subsidy scheme for Technology Up-gradation (CLCSS)
- Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)
- Prime Minister Employment Generation Scheme(PMEGP)

- Micro & Small Enterprises Cluster Development (MSE-CDP)

2. Technology Up gradation & Competiveness Schemes for MSMEs-

- Design Expertise to Manufacturing MSME sector
- Lean Manufacturing Competitiveness Scheme (LMCS)
- Digital MSME Scheme
- Financial Support to MSMEs in ZED Certification Scheme
- Support for Entrepreneurial and Managerial Development of MSMEs through Incubators
- Building awareness on Intellectual Property Rights (IPR)

3. Procurement and marketing support Schemes-

- Procurement and Marketing Support (PMS) Scheme
- Public Procurement Policy (PPP) for MSEs Order, 2012
- Government e-Marketplace

4. Proposed Schemes (if existing is not available)-

- State Govts. Financial support schemes to MSMEs.
