HDPE LAMINATED COLLAPSIBLE TUBES

1. <u>INTRODUCTION</u>

A typical Lamitube is a 5 layer structure with aluminium foil in the middle layer and polyethylene as an inner and outer layer. The Aluminium foil layer is bonded with polyethylene using adhesive/tie layer.

A lamitube is made using a 5-ply structure with overall thickness ranging from 210 to 290 micron based on the final application. The film is printed and slit to the required tube diameter generally ranging from (22mm-35mm) and converted into a Sleeve by sealing online. The Sleeve is then moved over a conveyor and goes to the molding station where the Shoulder (HDPE) of the tube is formed. The tube now moves over the conveyor and goes to the automatic capping machine where the cap (PP) is fitted. The finished tube is packed to FMCG companies for packaging.

Outer layer – The outer layer is 3 layer structure with PP in the middle layer and inner outer is a LLD-LD blend.

Inner layer – is a critical layer as it is in contact with the end product and is the sealing layer.

Lamitube are generally available in diameters ranging from 22 mm to 35 mm and tube lengths of 125 mm, 150 mm and 170 mm.

2. MARKET POTENTIAL

Lamitubes are widely used for packing of creams, tooth pastes, gels, viscous, ointment etc. These lami tubes have totally replaced the Aluminium Collapsible tubes. The demand for these product is increasing in view of new facial cream and other type of creams being developed by

the Multi National Companies. In view of the increase in population, and growing demand for creams, ointment etc., the demand will be increasing 10 to 15% every year.

3. BASIS & PRESUMPTIONS

- (i) The output capacity is taken as 100 Kgs/hr. The unit will work at 20 hrs. per day for 25 working days in a month and 300 days in a year. The output capacity may vary from machinery to machinery and the cost of machinery may also vary from supplier to supplier.
- (ii) The time period for achieving the full envisaged capacity utilisation is six months
- (iii) The labour wages are as per the prevailing rates in the market
- (iv) The rate of interest for fixed and working capital is taken as 12 per cent
- (v) The margin money requirement for this project is 30 per cent
- (vi) The pay back period of this project is 5 years
- (vii) The rate of land is taken @ Rs. 500/-per sq. mtr. and construction charges are taken @ Rs. 3500 per sq. mtr. This may also vary from place to place.
- (viii) The present profile has to be updated taking into prevailing cost of land, building, machinery etc. at the time of implementation of the project

4. IMPLEMENTATION SCHEDULE

The Time requirement for preparation of Project report : Two months

Time requirement for selection of Site : One month
Time required for registration as Small Scale Unit : One
Week

Time required for acquiring the loan

Machinery procurement, erection and commissioning: Three months

Recruitment of labourer etc. : One month

Trial runs : One month

5. TECHNICAL ASPECT

MANUFACTURING PROCESS

- 1. The web material on receipt is slit into reels the width being equal to the length.
- 2. The slit reels can be printed upto 6 colours in reel form with attractive designs. It is also possible to rotogravure print the web and apply in LDPE overcoat to bury the print.

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- 3. The printed web is fed onto tube making machine. This forms the body of the tube and welds the injection-moulded shoulder in place. This process must be done in an air conditioned room and dust free production area.
- 4. The tube is then tapped for delivery to clients.
- 5. Filling and sealing-Conventional filling equipment used for filling aluminium tubes can also be used for Lamitubes. However the machines need to be modified by removal of the crimping station which would have to be replaced by ultrasonic or high frequency sealing and trimming/cooling station.

6. **QUALITY & STANDARD**

The Laminated Collapsible Tubes are manufactured as per customers' specification

7. **PRODUCTION CAPACITY** (Per Annum)

(a) Quantity (M.T.) : 600

(b) Value (Rs.) 5,70,00,000.00 :

8. **TOTAL POWER REQUIREMENT**

Total connected load (KW) : 100

9. **POLLUTION CONTROL MEASURES**

The unit does not create any pollution. However, a proper ventilation should be made in the processing area for the better circulation of the fresh air.

10. **ENERGY CONSERVATION**

Entrepreneurs may select energy efficient machinery and proper planning has also to be made for saving energy in the unit.

FINANCIAL ASPECT

Α. **FIXED CAPITAL**

i) **LAND & BUILDING**: Area sq. mtrs. Rate Rs. per Sq. mtr.

300 500.00 (Rs.) Land

1,50,000.00 Building 100 3500.00

3,50,000.00

Total:

5,00,000.00

25

ii) **MACHINERY & EQUIPMENT**

<u>Description of machines</u> Qty.(Nos.) Sr. No. (Rs.)

- (a) Production Unit
 - i) Extrusion Blown Film Plant 26,00,000.00

iii) Lamination Plant 18,00,000.00 15,00,000.00 iv) Printing Machine v) Laminated Tube body making machine 10,00,000.00 vi) Solder Moulding Machine 1,00,000.00 vii) Tumble Mixer & Grinder 50,000.00 Plastic Crusher vii) 25,000.00 v) Filling & Sealing Machine 25,000.00 vi) Capping Machine 25,000.00 (b) Testing Equipment & Other Accessories 50,000.00 (c) Electrification & Installation @ 10% of cost & machinery 9,05,000.00 (a) & (b) (d) Pre-operative expenses 50,000.00 Total cost of machinery & equipment (a to d) 1,00,05,000.00 (e) Cost of Moulds & Dies 1,00,000.00 (f) Cost of Office Equipment/Furniture/Computers etc. 3,00,000.00 1,04,05,000.00 Total: _____ Fixed Capital - (i) + (ii) = 5,00,000.00 + 1,04,05,000.00 =1,09,05,000.00

ii) Extrusion Coating Plant

18,75,000.00

B. <u>WORKING CAPITAL</u>

i) Staff and Labour (Per Month)

Desi (Rs.)	gnation)	Nos.	Salary (Rs.)	
Prod	 luction Engineer/Manager	1	10,000.00	10,000.00
	s Executive	1	5,000.00	5,000.00
	accountant-cum- Store Keepe		1 4,000.0	
4,000.00	antant cam Store Recpt	21	1 4,000.0	O
1,000.00		26		
Wate	chman	2	3,000.00	6,000.00
Skill	ed Workers	3	3,500.00	10,500.00
Help	Helpers		3,000.00	9,000.00
				44,500.00
Add 4,450.00	perquisite @ 10% of the	Salary		
			Total:	48,950.00
			Or Say Rs.	49,000.00
ii)	Raw Material (Per Mont	h) (Oty. (M.T.) Rate/MT	(Rs.)
(Rs.)				
	HDPE Granules	50	75,000	
	37,50,000.00			
iii)	<u>Utilities</u> (per month):			(Rs.)
	a) Power (60% utilisation x	100 K	W x 500 hrs. x Rs. 5	1,50,000.00 per unit)
2,000.00	b) Water			

					Total:	1,52,000.00
(Rs.)	iv)	<u>Othe</u>	<u>r Contingent Expenses</u> (Per	month)		
		q)	Repairs and Maintenance 1,000.00			
		r)	Transportation Charges			5,000.00
		s)	Postage and stationery			1,000.00
		t)	Telephone/Fax/Computer 2,000.00			
		u)	Consumable Stores 1,000.00			
		v)	Advertisement & Publicity 2,000.00			
		w)	Insurance			4,000.00
		x)	Miscellaneous Expenses			
			2,000.00			
					Total:	18,000.00
12. (Rs.)	TOTA	AL W	DRKING CAPITAL (Per Mo	onth)		
	i)	Staff	and Labour			49,000.00
	ii)	Raw	Material			
	37,50	0,000	00			
			27			
	iii)	Utilit	ies			1,52,000.00
			109			

iv) Other Contingent Exp.

18,000.00

Total:

39,69,000.00

Working Capital for 3 months

1,19,07,000.00

13. TOTAL CAPITAL INVESTMENT

(Rs.)

A. Fixed Capital

1,09,05,000.00

B. Working Capital for 3 months

1,19,07,000.00

Total: 2,28,12,000.00

14. FIANCIAL ANALYSIS

- A. Cost of Production (per year) (300 days)
 - (a) Total Recurring Cost
- 4,76,28,000.00
 - (b) Depreciation on building @ 5%
- 17,500.00
 - (c) Depreciation on machinery& equipment @ 10%
 - 10,00,500.00
 - (d) Depreciation on Dies, Moulds &
 - 80,000.00

office equipment @ 20%

(f) Interest on total Capital Investment @ 12%

27,37,440.00

Total: 5,14,63,440.00

Or Say Rs.

5,14,63,000.00

B. <u>Sales/Turn over</u> (per year)

Item Qt

Qty.(MT) Rate (MT) Value (Rs.)

HDPE Laminated 600 95,000 5,70,00,000.00 Collapsible Tubes C. Net Profit (Per year) Sales(Rs) -Cost of Production (Rs.) Profit (Rs.) 5,70,00,000 5,14,63,000 55,37,000.00 D. Net Profit Ratio Net Profit x 100 Sales 55,37,000 x 100 = 9.71 % = 5,70,00,000 28 E. Rate of Return Net Profit x 100 Total Capital Investment 55,37,000 x 100 24.27 % 2,28,12,000 F. **Break-even Point** Fixed Cost (Per Year) Rs. Depreciation on Building @ 5% a) 17,500.00 Depreciation on Machinery & Equipment @ 10% b) 10,00,500.00 Depreciation on Moulds/Dies & Office Equipment @ 20% c) 80,000.00 48,000.00 d) Insurance Interest on total capital investment e) 27,37,440.00

f) 40% of salary and wages

2,35,200.00

g) 40% of other contingent expenses

67,200.00

Total: 41,85,840.00

Or Say Rs. 41,86.000.00

Net Profit (Per Year)

B.E.P. % = Fixed Cost x 100

Fixed Cost + Net Profit

= 41,86,000 x 100

41,86,000 + 55,37,000

= <u>41,86,000 x 100</u>

97,23,000

= 43.05%

MACHINERY & EQUIPMENT SUPPLIERS

1) **A-ONE ENGINEERING**

71/2 Phase - 1, GIDC Vatva, Ahmedabad-382 445

Phone: 079-25834843Fax: 079-25834843 E-mail: aoneengineering@rediffmail.com

Web: www.aoneengineering.com

Products/Services: Plastic Processing machinery (Bag making machine)

2) A ONE INTERNATIONAL

11, Amar Estate, Anil Starch Road,

Opp: Super Bread Factory,

Naroda Road, Ahmedabad-380 025.

Phone: 079-22201482/22201861 Fax: +91-79-22203684

E-mail: aonead1@sancharnet.in Web: http: \\www.newyesh.com

Products/Services: HDPE/PP Woven Sack Machinery:

- 1) High speed 4,6 &8 shuttle circular looms
- 2) High speed magnetic type cheese winders
- 3) Flexographic printing machines
- 4) Bale Press Machines
- 5) Sutli Plant
- 6) Sutli Monofilament box strapping & all types of winders
- 7) Spares for all the above

3) AMBICA PLASTIC MACHINERY MANUFACTURERS

1-2, Kansawala Estate, Opp: Chakudia Mahadev,

Rakhial, Ahmedabad-23. (Guj.) INDIA

Phone: (O) +91-79-2274 5089, 6512 6275 Fax: +91-79-2278 2613

Cell: 098251 57891, 092274 48246

E-mail: info@ambicaplastic.com/ambica_kalpesh@hotmail.com

Web: www.ambicaplastic.com

Products/Services: Reprocessing/H.D.P.E. Monofilament/P.P. Tap

Plants

Sutli Plant with "T" Die HDPE/P.V.C. Pipe Plant

Tubing Plant

Ancillary Equipments

PP/HDPE Rope Machinery

Box Strapping Plant

Jerry Can Plant

4) CENTRAL MACHINERY &PLASTIC PRODUCTS

1, Lajya Estate, Mogra Road, Andheri East, Mumbai-400 069.

Phone: +91-22-28366198 Fax: +91-22-28375271

E-mail: cmp@bom3.vsnl.net.in Web: www.cmppin.com

Products/Services: Manufacturers of fully automatic blow moulding Machines for processing of PVC, HDPE, LDPE, PP materials from 5 ml. to

60 Itrs.

5) **DYNAMIC ENGINEERS (INDIA)**

B-54, Hari Nagar (Clock Tower),

New Delhi-110 064.

Phone: 011-25496293/25126188

E-mail: dynamicengineers@trade-india.com

Products/Services: Cooling Tower, Heat Exchanger, Indl. Chiller,

Mould Temp. Controller

6) FERROMATIC MILACRON INDIA LTD.

92 Phase – I GIDC, Vatva, Ahmedabad-382 445

Phone: 079-25890081 Fax: 079-25830125

E-mail: sales@fmi-ahd.com Web: www.milacronindia.comm

Products/Services: Mfg. of plastics injection moulding machines from

the

Range of 30 tons to 3000 tons and extrusion blow moulding machines.

7) **FIVE STAR ENGINEERS**

Bhagwati Estate, Opp: Bavri Kumbharwada, Idgah Road, Pratapnagar, Baroda-390 004.

Phone: (F) 0265-2581698 Telefax: 2580026 (R) 0265-2564896

(M) 098980 87865 E-mail: fivestarengineer@hotmail.com

Web: www.fivestarengineers.com

Products/Services: Double Die Extruder, Single Die Extruder

8) **FIXOPAN MACHINES PVT. LTD.**

71, Nehru Place, New Delhi-110 019

Phone: 0129-2237212/5067210-12 Fax: 0129-2237672

E-mail: roto@fixopan.net/sales @fixopan.net

Web: www.fixopan.net

Products/Services: Manufacturers of Rotomoulding machines,

Pulverisers.

Molds in cast aluminium/SS/MS, finished roto parts/planters.

9) **GUJARAT MACHINERY**

Plot No. 524, GIDC Phase II, Vatva, Ahmedabad-382 445.

Phone: +91-79 25830043 Fax: 079 25332439

E-mail: intek@icenet Web: www.gujaratmachinery.com

Products/Services: Plastic machinery viz: Wide Width Lamination

Plants.

10) **JAGMOHAN INDUSTRIES**

115 Sharad Industrial Estate, Lake Road, Bhandup (West),

Mumbai-400 078.

Phone: 25950246 Fax: 25965434

E-mail: jagmohan@vsnl.com Web: www.jagmohan.com

Products/Services: Plastic Automatic Blow Moulding Machine from

100 MI to 1000 Ltrs.

11) **JAI MATA ENGINEERING**

No. 734, Rajagopalanagar, B/h Maruti Theatre,

Peenya 2nd Stage, Bangalore-560 058.

Phone: 080-6763 4323 Cell.: 093437 33300, 098862 14330

Products/Services: Single Decker Cutting & Sealing Machine,

Double Decker

Cutting & Sealing Machine, Point to Point Cutting & Sealing Machine, Pouch Making Machine for Carry Bags, Slide Sealing Machine, Polyethylene/PP/HM/LLDPE Extruders, reprocessing Units, Automatic Roll Winding Nes, Scrap Grinders, Colour Mixer/Driers Card Making (sutli) Machine, Rotogravure Printing Machine, Automatic Liquid – Fill & Seal Machine, Automatic Form – Fill & Seal Machine, Thermoforming Machine, Seat Plant & Die.

12) KABRA EXTRUSIONTECHNIK LTD.

Kolssite House, Veera Desai Road, Andheri (West), Numbai-400 053.

Phone: 26734822/24 Fax: 267335041

E-mail: sales@kolsitegroup.com Web: www.kolsite.com

Products/Services: Twin screw extruders for RPVC pipes/profiles/pellets

high output single screw extruders for PO pipes raffia tape plants &

cheese winders monolayer & multilayer film plants.

13) KONARK PLASTOMECH PVT. LTD.

Plot No. 81, GIDC, Odhav, Ambica Nagar Road, Ahmedabad-382 415.

Phone: 079-22281670 Fax: +91-79-22890874

E-mail: sales@konarkplasticmachinery.com

Web: www.konarkplastomech.com

Products/Services: Mfrs. Thermoplastic extrusion plants.

14) LARSEN & TOUBRO Itd.

LTM Business Unit, Mount-Poonamallee Road,

Post Bag No. 990, Chennai-600 089. Phone: 22497360 Fax: 044-22492471

E-mail: vpb@ltmindia.com Web: www.ltmindia.com

Products/Services: Injection Moulding Machines, Auxiliary Equipment

15) **LOHIA STARLINGER LIMITED**

D-3/A, Panki Industrial Estate, Kanpur-208 022.

Phone: +91-5112-282001 Fax: +91-5112-282205

E-mail: sales@lohiagroup.com Web: www.lohiagroup.com

Products/Services: Complete range of Machinery for manufacture of PP and HDPE Woven sacks and Fabrics comprising of – Tape Extrusion Lines – High Speed Inverter controlled Tape Winders – Circular Weaving Machines – Fabric to Bag Conversions Machines – Compact PP

Multifilament Spinning Machine.

16) **MACPLAST**

49, Shreenathji Estate, Nr. Panna Estate, B/h B.O.C. Gases,

Rakhial, Ahmedabad-380 021 (Guj.) INDIA

Phone: (F) 079-22746802

E-mail: macplastbp@hotmail.com/macplastbp@rediff.com

Products/Services: Multi Layer Film Plant, Two Layer PPTQ Blown Film

Plant,

Twin Head Mono Layer Blown Film Plant, Sutli Plants, Box Strapping Plants, LDPE Kisna Pipe Plants, HDPE Plants, Reprocess Plants,

Woven Sacks Tape Plant.

17) MAMATA BRAMPTON ENGINEERING PVT. LTD.

5/1/1A/1, GIDC, Phase-1, Vatva, Ahmedabad-382 445.

Phone: 079-55309800 Fax: 079-25832026

E-mail: info@mamata.com

Products/Services: Multilayer co-ex blown film plant

18) MAMATA MACHINERY PVT. LTD.

5/1/1A, GIDC Estate, Phase-1, Vatva, Ahmedabad-382 445.

Phone: 079-55309800 Fax: 079-25832026

E-mail: info@mamata.com Web: www.mamata.com

Products/Services: Plastic Bag & Pouch making machine, Packaging

machines.

19) **NEOPLAST ENGINEERING PVT. LTD.**

43, GIDC Estate, Phase-1, Vatva, Ahmedabad-382 445.

Phone: +91-79-25831185 Fax: +91-79-25835298

E-mail: info@neoplastindia.com Web: www.neoplasstindia.com Products/Services: Complete compounding plant with automation, High speed heater cooler mixers, Single screw extruders, Super conical twin screw extruders, Down stream equipments for R PVC pipe, profile, pelletizing application, Under water pelletizing system, Air cooled die face pelletizing system, Material handling system, Liquid metering/Dosing system, Anti-dusting/de-gassing system, Labaoratory scale equipments like – lab mixer, single screw extruder with various attachments, two roll mill, hydraulic press.

20) PANCHAL PLASTIC MACHINERY P. LTD.

Plot No. 127, GIDC, Umbergaon, Dist. Valsad-396 171

Phone: 0260-2563391/92 Fax: 0260-2562892

E-mail: panchal@panchal-plastic.com Web: www.panchal-plastic.com Products/Services: Agglomerator/Densifier machine – extruder (Single Screw & Twin Screw) – Blown Film Plant – Box strapping plant, Flat Film & Sheet – Pipe & Profiles – Grinder/shredders/Crushers – Compounding Plant – Re-processing/recycling Plant – Hot die-face cutting under air & water cooling – in-line recycling plant for film waste & lumps waste – Mixer (type-high speed, tumbler, vertical) – strand pelletizer – Screen changer (Hydraulic & manual) – Grinding, washing & drying plant for PET bottle, film waste & moulded article, PET-recycling plant-bags/sacks cutting & sealing machine.

21) R.R. PLAST EXTRUSIONS PVT. LTD.

B-3, Nand Jyot Ind. Estate, Safed Pool, Sakinaka, Andheri-Kurla Road, Andheri (E), Mumbai-400 072.

Phone: +91-22-2852 0396/2850 5208 Telefax: 2850 9603 Cell: 9967023161 E-mail: rrengg@vsnl.net/mkt@rrengg.com

Web: www.rrengg.com

Products/Services: RR's Drip Irrigation Pipe Plant with Auto Coiler

22) RAJOO ENGINEERS LIMITED

Survey No.210, Plot No.1, Industrial Area

Veraval Shapar, Rajkot-360 002.

Phone: 0091-2827-252701/2 Fax: 0091-2827-252700

E-mail: rel@rajoo.com Web. www.rajoo.com

Products/Services: FOILEX:Monolayer Blown Film Lines for PE/PP/PVC. MULTIFOIL: Multilayer Upward Extrusion Blown Film Lines. AQUAFLEX: Multilayer Downward Extrusion Blown Film Lines. LAMINA: Mono & Multilayer Sheet Lines for PS/PP/PET/LDPE. DISPOCON: Thermoformers for PS/PP/PET. TWINEX: Single and Twin Screw Lines for pipes and profiles. HDPE permanently lubricated duct plant for optical fibres including nylon rope insertion.

23) **RANA & SONS**

Plot No. 128-A, Govt. Ind. Estate, Charkop Kandivali West,

Mumbai-400 067.

Phone: 28683897/4181 Fax: +91-22-28682244 E-mail: ranasons@vsnl.com/arun@bom7.vsnl.net.in

Web: www.ranasons.com

Products/Services: Blow Moulding Machine, Injection Moulding Machines,

PET Stretch Blow Moulding Machines.

24) REMICA PLASTIC MACHINERY MANUFACTURERS

2/AB Sardar Patel Ind. Estate, Near Gujarat Petrol Pump, Narol. Ahmedabad-382 405.

Phone: 079-25712741 Fax: 079-25714234

E-mail: remicaad1@sancharnet.in Web. www.remicaplastics.com Products/Services: Manufacturers of Thermoplastic Extrusion Plants for

inductor of the moral control of the moral control

Tapeline, Circular Looms, Extrusion Lamination Plants.

25) STAR FLEX INTERNATIONAL

A-43, Street No. 7, Anand Parbat Industrial area,

New Rohtak Road, New Delhi-110 005.

Phone: +91-11-2876 5588 Telefax: +91-11-2876 5588

Mobile: 093111 45588, (TATA) 092135 02930

Products/Services: High Class Flexographic/Rotogravure Printing

Machine.

26) SUNRISE PLASTIC MACHINERY MANUFACTURER

B/21-22, Ambica Estate, Ambikanagar, Nr. Hanuman Temple,

Odhav, Ahmedabad-382 415 (Guj.) INDIA.

Phone: (O) 079-65137486

Cell: 098253 58581, 098256 15776, 098793 01422 E-mail: joshi_sunriseplasticmachinery@yahoo.co.in

Web: www.sunriseplastic.tradeindia.com

Products/Services: 'T' Die Sutli Plant, PP/HDPE Mono Filament Plant, PP/HDPE Box Strapping Plant, PP TQ Blown Film Plant, HM/LD/LLDPE Mono Layer, Blown Film Plant, Multilayer Blown Film Plant, Lamination Plant, Air Bubble Sheet Plant, PP/HDPE/Rigid PVC Pipe Plant, PP/HDPE Woven Sacks Plant, Reprocess Plant.

27) TWIST ENGINEERING WORKS

C/1, 4410, Phase-4, G.I.D.C. Estate, B/h Indo-German Tool Room, Vatva, Ahmedabad-382 445 (Guj.) INDIA

Phone: (O) 079-25842878, 30913587 Fax: 079-25840429

E-mail: twist@sancharnet.in, twist24@rediffmail.com

Web: www.twistplasticmachinery.com

Products/Services: Extrusion Plants for – Rigid PVC, HDPE, HM/HDPE, LLDPE, LDPE and PP Blown Film Plant, Above Plants with Rotating Extruder/Rotating Die, Pipe, Casing Caping, Section & sleeve Plants for PVC/HDPE PP & PP-R, PVC Braided & Suction Hose Multilayer Co-Extrusion Film Plants, Plastic Sheet Plant with Teedie & Steel Polishing Stack, PVC Wire/Cable Plant & Spool Drum/Winder, PVC Compounding Plant with Die-Face Cutter & Reprocessing Plant, PP/HD Box Strapping Plant, Rafia Tape Plant, Scrap Grinder and Agglomerater, Special Specification Plants on request & Extruders with 'Realloy' Barrel, LD Foam Film Plant, Automatic Pipe Cutter, High Speed Mixers & Heater-Cooler Mixers.

ANNEXURE - II

Web:

RAW MATERIAL SUPPLIERS

1. BASF STYRENICS PVT. LTD.

RBC Mahindra Towers

5th Floor B-Wing, Dr. G.M. Bhonsale Marg

Worli, Mumbai - 400 018

Phone: 55618227 Fax: 56604073

E-mail: <u>ramanamv@basf-india.co.in</u> Web: <u>www.basf.com</u> Products: ESCR Polystyrene, ABS, SAN, MABS, ASA Blends etc.

2. BAYER MATERIAL SCIENCE PVT.LTD.

Building D-527, Kolshet Road, Thane – 400 607 Phone: 91-22-25311297/285 Fax: 25455069

E-mail: <u>plastics@bayerbms.com</u>

www.bayermaterialscience.com

Products: Polycarbonate (PC) PC Films & PC Sheets, PC Blends

3. DOW CHEMICAL PACIFIC (SINGAPORE) PTE LTD.

260 Orchard Road, # 18-01, The Heeren, Singapore - 238855

Phone: (65) 68353773 Fax: (65) 68340320

E-mail: dowcig@dow.com Web: www.dowplastics.com

Products: Polyethylene resins, Polystyrene, Polypropylene, Engineering Thermoplastics, Elastomers and Speciality Products, and

Wire & Cable Compounds.

4. DSM ENGINEERING PLASTICS INDIA (P) LTD.

"Ashirvad" 110/12 Erandawane

Lane No. 14 Income Tax Lane, Off Prabhat Road

PUNF - 411 004

Phone: 020-25461075/39506264 Fax: 020-25455259

E-mail: joydeep.sen-chaudhuri@dsm.com Web: www.dsmep.com Products: Stanyl (PA 4,6) Amite (TPE-E), Akulon (PA 6, pa 66), Amite

(PBT, PET and blends)

5. **GE PLASTICS INDIA**

8th Floor, Gateway Towers, DLF – III, NH – 8

Gurgaon – 122 002

Phone: 0124-5018001 Fax: 0124-5018019

E-mail: <u>rk.arora@ge.com</u> Web: www.geplasticsindia.com Products: Polycarbonate – Lexan, PBT – Valox, PPO – Noryl.

6. **GHARDA CHEMICALS LTD.**

Plot No. 3525 - 26 - 27, GIDC Estate, Panoli

Dist. Bharuch, Gujarat - 394 116

Phone: 02646 - 272575 /6 Fax: 02646 - 272141

E-mail: Polymer@gharda.com Web: www.ghardapolymers.com

Products: Polymers PEEK, PEK, PES, PSS, PPSU, PSU

7. HALDIA PETROCHEMICALS LTD.

1, Auckland Place, Kolkata - 700 017

Phone: 033-22831640/3/5 Fax: 033 - 22831654

Web: www.haldiapetrochemicals.com

Products: LLDPE, HDPE, PP, Benzene, Butadiene, MS Euro III, LGP, PY

Gas, Cyclopentane.

8. INDIAN OIL CORPORATION LIMITED

Scope Complex, Core-2, 7 Institutional Area

Lodhi Road, New Delhi - 110 003

Phone: 011-24360214 Fax: 011 - 24367548

E-mail: khuranavk@iocl.co.in Web: www.indianoilcorp.com

Product: PP- 600 KTA, HDPE - 300 KTA, hdpe/lldpe - 350 KTA, MEG -

300 KTA, PTA - 553 KTA.

9. J.P. POLYMERS PVT. LTD.

3, Shram Laxmi Industrial Est.

Opp. Indiana Bakery, Kanchpada, Ramchandra Lane Extn. Road.

Malad (W), Mumbai - 400 064.

Phone: 56998881 - 84 Fax: 56998887

E-mail: mail@jppolymers.net

Products: Polycarbonate (Dupont), Nylon'6, Nylon'66& PBT 9SRF),

Acylic-PMMA (Sumitomo), K-Resin (Philips), Transparent ABS (Toray),

POM, UHMW-PE, ABS & SAN

10. **RELIANCE INDUSTRIES LTD.**

Maker Chambers-IV, Nariman Point, Mumabi - 400 021

Phone: 30322100 Fax: 30322199

E-mail: tushar roy@ril.com Web: www.ril.com

Products: Polymers, Chemicals, Fibers & Intermediates

11. SUPREME PETROCHEM LTD.

17/18, Shah Industrial Estate, Veera Desai Road

Andheri (West), Mumbai – 400 053. Phone: 26736196 – 99 Fax: 26736203

E-mail: <u>sharad_parate@spl.co</u>. on Web:

www.supremepetrochem.com

Products: Crystal Polystyrene, Impact Polystyrene, ESP, Modified Polyestyrene, Flame Retardant and Antistatic Polystyrene, Color and Additive Masterbatches, Polyolefinic Compounds.