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Bankers

Central Bank of India
Bank of Baroda
Corporation Bank
State Bank of India

Auditors

Kalyaniwalla & Mistry,
Chartered Accountants

Legal Advisors

A. H. Parpia & Co.,
Advocates and Solicitors

Registrars & Transfer Agents

Tata Share Registry Ltd.
Army & Navy Building,
148, M. G. Road, Mumbai-400 001.
Tel: 022-2287 3831
Fax: 022-2284 4160
E-Mail: csg-unit@tatashare.com

Registered Office

Army & Navy Building,
148, M. G. Road,
Mumbai-400 001.
Tel: 022-2284 4727
Fax: 022-2202 3711

Factories

1. Mora, Dist. Raigad, Maharashtra
2. Nagpur, Maharashtra
3. Bangalore, Karnataka
4. Tirupati, Andhra Pradesh

DIRECTORS

Mr. C. STREIFF
(Chairman)

Mr. A. C. CHAKRABORTTI
(Vice-Chairman)

Mr. R. K. BILIMORIA

Mr. G. COLAS

Mr. P. CROUZET

Mr. H. C. PATEL

Mr. J. F. PHELIZON

Mr. N. D. SIDHVA

Mr. R. P. STATILE

Mrs. D. S. VARIAVA
(Alternate Director to Mr. J. F. Phelizon)

Mr. A. Y. MAHAJAN
(Managing Director)

SENIOR MANAGEMENT

Mr. P. K. Bapat
(Bonded Abrasives)

Mr. J. A. J. Pereira
(Finance & Corporate Services)

Mr. V. Srinivasan
(Marketing & Coated Abrasives)

COMPANY SECRETARY

Mr. S. M. Mandke

NOTICE

NOTICE is hereby given that the Fifty-third Annual General Meeting of the Members of Grindwell Norton Limited will be held on Tuesday, 29th April, 2003, at 3.00 p.m. at M.C. Ghia Hall, Bhogilal Hargovindas Building, 18/20, Kaikushru Dubash Marg, (Rampart Row), Mumbai-400 001 to transact the following business:

ORDINARY BUSINESS

1. To receive, consider and adopt the Directors' Report, the Auditors' Report and the Audited Balance Sheet and Profit and Loss Account of the Company for the year ended 31st December, 2002.
2. To declare a dividend for the year ended 31st December, 2002.
3. To appoint a Director in place of Mr. A. C. Chakraborti who retires by rotation and being eligible, offers himself for re-appointment.
4. To appoint a Director in place of Mr. N. D. Sidhva who retires by rotation and being eligible, offers himself for re-appointment.
5. To appoint a Director in place of Mr. A. Y. Mahajan who retires by rotation and being eligible, offers himself for re-appointment.
6. To appoint M/s. Kalyaniwalla & Mistry, Chartered Accountants, who are eligible for appointment as the Auditors of the Company, to hold office from the conclusion of this Annual General Meeting until the conclusion of the next Annual General Meeting and to fix their remuneration.

SPECIAL BUSINESS

7. To consider and if thought fit, to pass with or without modification(s), the following resolution as a Special Resolution:

"RESOLVED THAT in accordance with the provisions of Section 309(4) and other applicable provisions, if any, of the Companies Act, 1956, and Article 116(2) of the Articles of Association of the Company, the non whole-time directors (excluding the directors who are nominees of Compagnie de Saint-Gobain or its subsidiaries) be paid, a commission, to be divided among them in such manner as the Board of Directors (the Board), may from time to time determine, of such amount not exceeding one percent of the net profits of the Company, computed in the manner prescribed under the provisions of the Companies Act, 1956, for a period of not more than five years commencing from 1st January, 2004.

FURTHER RESOLVED THAT the aforesaid commission shall be in addition to the sitting fees and/or out of pocket expenses payable to such directors for each meeting of the Board or Committees of the Board attended by such directors.

FURTHER RESOLVED THAT the Board be and is hereby authorised to take such steps as may be necessary, desirable or expedient to give effect to this Resolution."

8. To consider and if thought fit, to pass with or without modification(s), the following resolution as a Special Resolution:

"RESOLVED THAT in continuation of the Special Resolution passed by the Members at their 49th Annual General Meeting held on 16th July, 1999 and in pursuance of the Securities and Exchange Board of India (Delisting of Securities) Guidelines – 2003, the provisions of the Listing Agreement, the provisions of the Companies Act, 1956, Securities Contracts (Regulation) Act and the SEBI Act, 1992, the Company be and is hereby empowered and authorised to seek delisting of its equity shares, from The Delhi Stock Exchange Association Limited and The Hyderabad Stock Exchange Limited, with immediate effect.

FURTHER RESOLVED THAT the Board of Directors of the Company be and is hereby authorised to do all such acts, deeds, matters and things as may be necessary for the purpose of giving effect to the above Resolution."

6th March, 2003

By Order of the Board

Registered Office:

Army & Navy Building,
148, Mahatma Gandhi Road,
Mumbai-400 001.

S. M. MANDKE
SECRETARY

NOTES :

- (a) **A MEMBER ENTITLED TO ATTEND AND VOTE IS ENTITLED TO APPOINT A PROXY, TO ATTEND AND VOTE INSTEAD OF HIMSELF, AND A PROXY NEED NOT BE A MEMBER.**
- (b) **PROXIES, IN ORDER TO BE EFFECTIVE, MUST BE RECEIVED AT THE REGISTERED OFFICE OF THE COMPANY, NOT LESS THAN FORTY-EIGHT HOURS BEFORE THE COMMENCEMENT OF THE MEETING.**
- (c) The Register of Members and Share Transfer Books of the Company will be closed from Tuesday, 11th March, 2003 to Tuesday, 18th March, 2003 (both days inclusive).
- (d) The relative Explanatory Statements pursuant to Section 173 of the Companies Act, 1956, in respect of the business under item nos. 7 & 8 are annexed hereto.

- (e) The dividend on equity shares, if declared at the meeting, will be paid on or after 6th May, 2003.
- (f) The unclaimed dividends for and up to the financial years ended 31st March, 1995, have been transferred to the Central Government in terms of the provisions of Section 205A of the Companies Act, 1956. Those Members who have not yet claimed their dividends for the said periods may claim the same by submitting application in Form No. II to the Registrar of Companies, Maharashtra, Hakoba Compound, 2nd Floor, Dattaram Lad Marg, Mumbai-400 033. As per the amended provisions of the Companies Act, 1956, the dividend remaining unclaimed or unpaid for the financial years ended from 31st March, 1996 will be transferred to the Investor Education and Protection Fund (Fund) of the Central Government on expiry of seven years from their respective date(s) of declaration. The unpaid dividend for the financial year ended 31st March, 1996, will be transferred to the Fund, on 6th September, 2003. Members who have not yet encashed the dividend warrants for aforesaid financial years, are once again requested to make their claims immediately to the Company or to the Company's Registrars & Transfer Agents – M/s. Tata Share Registry Ltd. (TSRL).
- (g) As per the amended provisions of the Companies Act, 1956, the facility for making nomination is now available to the members in respect of the shares held by them. Nomination forms can be obtained from the Company's Registrars and Transfer Agents – TSRL.
- (h) The Company proposes the payment of dividend, if declared, through Electronic Clearing Service (ECS) or incorporation of Bank Details on the dividend warrants as furnished by the members. Members holding shares in Physical mode are advised to immediately submit the ECS/Bank Details to the Company's Registrars and Transfer Agents – TSRL or notify the changes, if any, to TSRL and Members holding the shares in Demat mode are advised to submit the ECS/Bank Details to their respective Depository Participants (DP) or notify the changes, if any, in their ECS/Bank Details to their respective DPs.

ANNEXURE TO THE NOTICE

Notes on directors seeking re-appointment, as required under Clause 49 of the Listing Agreement, entered in to with the Stock Exchanges.

ITEM NO. 3

Mr. A. C. Chakrabortti is 72 years old. He is FCA (Eng. & Wales), and FCA of the Institute of Chartered Accountants of

India. Mr. Chakrabortti retired as a Senior Partner of M/s. S. R. Batliboi & Co. He has been a Director of your Company since 1983. Presently he is the Vice-Chairman of the Board and the Chairman of the Audit Committee. Mr. Chakrabortti serves on the Boards of several other companies.

ITEM NO. 4

Mr. N. D. Sidhva is 79 years old. He is one of the pioneers of the Abrasive Industry in India and has been closely associated with your Company over the last 60 years. He was the Managing Director/Whole-time Director of the Company for a period of 27 years and subsequently has been a Director of your Company. He continues to serve as a Technical & Marketing Consultant to your Company.

ITEM NO. 5

Mr. A. Y. Mahajan is 50 years old. He holds a Masters degree in Economics from the University of Bombay and a MBA from Cornell University. He joined the Company in the year 1983, became a Director in 1988 and has been the Managing Director of the Company since 1991. He has rich knowledge and experience of the working of the Company and under his leadership the Company has grown in size and profitability.

EXPLANATORY STATEMENTS

As required by Section 173 of the Companies Act, 1956, the following explanatory statements set out all the material facts relating to the Special Business mentioned in the accompanying Notice dated 6th March, 2003.

ITEM NO. 7

Section 309(4) of the Companies Act, 1956 and Article 116(2) of the Articles of Association of the Company provide for payment of commission to the non whole-time directors of the Company.

At present non whole-time directors, except the directors who are nominees of Compagnie de Saint-Gobain (CSG) or its subsidiaries, are paid a sitting fee of Rs. 5,000/- (increased from Rs. 500/- to Rs. 5,000/-, with effect from 6th March, 2003), for each meeting of the Board/Audit Committee/Shareholders/Investors' Grievance Committee attended by them. In addition, they are entitled to a profit commission, as determined by the Board of Directors from time to time, but upto 1% of the net profit of the Company, for five financial years commencing from 1st April, 1999, as authorised under a Special Resolution of the Shareholders passed at the forty eighth Annual General Meeting, held on 17th July, 1998. Further, Mr. N. D. Sidhva is paid a retainerhip fee of Rs. 48,000/- (Rupees Forty Eight Thousand Only) per annum, for professional services rendered, as Technical and Marketing Consultant.

Since such directors devote considerable time to the business of the Company and the Company substantially benefits from their expertise and advice, it is appropriate that the said



directors continue to be paid the proposed commission on profits for a further period of five years commencing from 1st January 2004.

Your Directors recommend the said Special Resolution for your approval.

All the Directors except the directors who are nominees of CSG or its subsidiaries, may be deemed to be concerned or interested in the said Special Resolution.

ITEM NO. 8

Members of the Company had passed a Special Resolution, at their 49th Annual General Meeting held on 16th July, 1999, authorising the delisting of the Company's equity shares from The Delhi Stock Exchange Association Limited (DSE) and The Hyderabad Stock Exchange Limited (HSE), in view of infrequent/non-trading of Company's equity shares on these Exchanges. Thereafter the Company had sought delisting of its equity shares from these Exchanges and the final decisions of these Exchanges are awaited.

As per the new SEBI (Delisting of Securities) Guidelines – 2003, (Guidelines), which have been notified recently, the Company can delist its securities from DSE and HSE without providing an exit opportunity, provided that the securities will continue to be listed on a stock exchange having nation wide trading terminals i.e. The Stock Exchange, Mumbai (BSE) or National Stock Exchange. The Company's Equity Shares are listed on BSE, which has nation wide trading terminals and it will continue to be listed on BSE.

Though the aforesaid approval granted by the Members at their 49th Annual General Meeting held on 16th July, 1999, is subsisting, this approval is being sought in the light of new Guidelines, out of abundant caution.

Your Directors recommend the said Special Resolution for your approval.

None of the Directors of the Company are concerned or interested in the said Special Resolution.

6th March, 2003

By Order of the Board

Registered Office:

Army & Navy Building,
148, Mahatma Gandhi Road,
Mumbai-400 001.

S. M. MANDKE
SECRETARY

REQUEST TO THE SHAREHOLDERS

1. Copies of the Annual Report will not be distributed at the Annual General Meeting. You are therefore, requested to bring this copy of the Annual Report to the Meeting.
2. Members desirous of seeking any further information about the accounts and/or operations of the Company, are requested to address their queries to the Secretary of the Company at least ten days in advance of the meeting so that the information, to the extent practicable, can be made available at the meeting.
3. Members holding shares in the same set of names under different Ledger Folios are requested to apply for consolidation of such folios along with relevant share certificates to the Company's Registrars & Transfer Agents, TSRL.
4. Members are requested to immediately intimate the change, if any, in their registered address to TSRL.

DIRECTORS' REPORT

The Members,
Grindwell Norton Limited

Your Directors present the Fifty-third Report of the Company along with the Audited Accounts for the year ended 31st December, 2002.

Financial Highlights

	(Rs. Million)	
	2002	2001
Sales	2,246.6	1,942.8
Operating Profit	267.6	196.7
Interest	28.3	30.5
Profit before Tax and Extraordinary Items	239.3	166.2
Extraordinary Items: Income/(Expenses)	20.6	(93.4)
Profit before Tax	259.9	72.8
Provision for Tax	83.0	52.0
Deferred Tax	(3.6)	(40.5)
Profit after Tax	180.5	61.3
Excess provision for Tax on Dividend of earlier year/period	4.2	5.2
Surplus Brought Forward	40.0	50.0
	224.7	116.5
Appropriations:		
Proposed Dividend	83.0	41.5
Tax on Proposed Dividend	10.7	4.2
Debentures Redemption Reserve	—	20.0
General Reserve	91.0	10.8
Surplus carried to Balance Sheet	40.0	40.0
	224.7	116.5

Responsibility Statement

Your Directors confirm that:

- in the preparation of the annual accounts, the applicable accounting standards have been followed;
- appropriate accounting policies have been selected and applied consistently and judgments and estimates that are reasonable and prudent have been made so as to give a true and fair view of the state of affairs of the Company as at 31st December, 2002 and of the profit of the Company for that year;
- proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- the annual accounts have been prepared on a going concern basis.

Operations

The year witnessed substantial improvement in your Company's performance with sales and operating profit registering significant increase. This was partly on account of an increase in volumes in abrasives and partly on account of a variety of actions initiated by the management of your Company, during the last twelve to eighteen months. On a sales increase of 16%, operating profit increased by 36%.

Dividend

Considering the excellent performance during the year under review, your Directors recommend a dividend of Rs. 6.00 per equity share for the year ended on 31st December, 2002. The total dividend outgo (excluding tax on dividend) will be Rs. 83.04 Million (Previous year Rs. 41.52 Million).

Abrasives

The Bonded Abrasives business witnessed an increase in demand, due to significant growth in the production of commercial vehicles and motorcycles, coupled with strong export led growth of the auto components industry and higher output of steel and bearings. Also, as a result of the various product and service initiatives undertaken by your Company, its market share increased. Your Company's on going efforts to develop international markets yielded results in the form of significantly higher export sales. Higher sales volumes, coupled with steps taken for cost control during the previous year as well as during the current year helped in improved profitability for the business.

The Coated Abrasives business, through successful new product launches and product upgrades, witnessed strong growth during 2002. Sustained efforts in the Export Market have improved the outlook for 2003 significantly.

Ceramics & Plastics

The Silicon Carbide business continues to do well, both in terms of sales and profits. However, the business is currently faced with a major uncertainty, due to the steep increase in "wheeling charges" effected by the Transmission Corporation of A.P. Ltd. (A.P. Transco), from 1st April, 2002, totally disregarding the binding contracts between Andhra Pradesh Gas Power Corporation Ltd. and A.P. Transco. Your Company, has challenged the order in the Honourable Andhra Pradesh High Court and the Court has granted an "Interim Suspension" to the order, pending its final ruling. Your Directors are of the view that this steep increase in wheeling charges is arbitrary and unsustainable. However, out of abundant caution, your Company has made provisions in the Accounts under review for the cash component of the Wheeling Charges. Please see Note No. 3 of Schedule 14.

The Refractories business had a good year with significant orders from the non-ferrous sector. Pursuant to the authorisation given by the Shareholders through a postal ballot, the Fused Cast Refractories business was sold to M/s. SEPR Refractories India Ltd. for a consideration of Rs. 68.63 Million.



Our efforts in the Performance Plastics business have started yielding results with growing sales in the automotive and construction sectors.

Future Prospects

As a result of various actions initiated by your Company's management during the last two years, your Company's main businesses (other than Silicon Carbide) should continue to perform well. As regards the Silicon Carbide business, your Company's future course of action will depend on the final ruling (referred to above), which will have a significant impact on the cost of electricity and the viability of the business.

Environment, Energy Conservation, Technology Absorption, Foreign Exchange Earnings and Outgo

Your Company is committed to ensure a green and pollution free environment as well as a clean and safe workplace at all plant locations and work sites. As required by the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, the relevant information pertaining to the conservation of energy, technology absorption and foreign exchange earnings and outgo as required in the prescribed format is annexed (Annexure A) and forms part of this Report.

Fixed Deposits

Your Company has repaid all Fixed Deposits that have matured, and for which depositors have applied for refund. Deposits amounting to Rs. 1.19 Million from 98 depositors, became due for repayment during the year under review, which remained unclaimed as at 31st December, 2002. The Company has subsequently received instructions for repayments from 64 depositors amounting to Rs. 0.74 Million. Your Company had discontinued the Fixed Deposit Schemes from the year 2001.

Employee Relations

Your Directors place on record their appreciation for the contribution made by all the employees in the progress of your Company. The Wage Agreements at Mora, Bangalore and Tirupati expired during the year. Unions at Bangalore and Tirupati have submitted new Charters of Demand and negotiations have begun. The Unions at Mora have also submitted their demands but the negotiations are yet to commence.

During the year, your Company had implemented Voluntary Retirement Schemes at its Head Office, Sales Offices and plants at Mora and Bangalore. In all, 31 employees accepted voluntary retirement. As at the year end, there were 1318 employees.

Acknowledgements

Your Company gratefully acknowledges the patronage of its esteemed customers, the strength it derives from its

association with Compagnie de Saint-Gobain and a number of its subsidiaries (in particular, Saint-Gobain Abrasives Inc.), the support from its Bankers and the loyalty of the large family of the Company's Dealers, Suppliers and Shareholders.

Particulars of Employees

Information as per Section 217 (2A) of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975, is annexed; (Annexure B) and forms part of this report.

Management Discussion & Analysis Report and Report on Corporate Governance

The Management Discussion and Analysis Report and Report on Corporate Governance along with a Certificate dated 6th March, 2003, of the Auditors of your Company, regarding the compliance of the conditions of Corporate Governance as stipulated under clause 49 of the Listing Agreement with the Stock Exchanges are annexed (Annexure C).

Directors

During the year under review, Mr. G. Colas, relinquished the office of the Chairman of the Board due to his taking up a new assignment within Saint-Gobain. He will, however, continue to be a Director of your Company. Mr. C. Streiff, who heads the High Performance Materials (Abrasives, Ceramics & Plastics) sector of activity of Saint-Gobain, has been elected as the Chairman of the Board in place of Mr. Colas. The Board records its appreciation for the valuable guidance and support given by Mr. Colas, during his tenure as the Chairman.

In accordance with the requirements of the Companies Act, 1956 and Articles of Association of the Company, Mr. A. C. Chakrabortti, Mr. N. D. Sidhva and Mr. A. Y. Mahajan retire by rotation and being eligible offer themselves for re-election as Directors of your Company.

Auditors

M/s. Kalyaniwalla & Mistry, Chartered Accountants, Auditors of your Company, retire on the conclusion of 53rd Annual General Meeting. You are requested to appoint Auditors for the current financial year and to fix their remuneration. The retiring Auditors, M/s. Kalyaniwalla & Mistry, Chartered Accountants, are eligible for re-appointment.

On behalf of the Board of Directors,

A. C. CHAKRABORTTI
VICE-CHAIRMAN

A. Y. MAHAJAN
MANAGING DIRECTOR

Mumbai: 6th March, 2003

ANNEXURE A TO THE DIRECTORS' REPORT

Information pursuant to the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988.

CONSERVATION OF ENERGY:

Following activities were undertaken to save/conserved energy:

1. Energy audits to identify key areas for improvement in energy efficiency of the processes adopted and eliminating wastages.
2. Implementation of the energy conservation methods and/or improving input-output ratios in the Ceramics & Coated businesses.

Form A for disclosure of particulars with respect to Conservation of Energy:

Product: Refractories

	2002	2001
A. Power and Fuel Consumption:		
1. ELECTRICITY		
(a) Purchased:		
Units	1056211	1076646
Total Amount (Rs. Million)	4.62	4.92
Rate/Unit Rs.	4.37	4.57
(b) Own Generated:		
(i) Through diesel generators:		
Units	115179	126728
Units per Ltr. of diesel	3.22	3.23
Cost/Unit Rs.	5.77	5.75
(ii) Through Steam turbine/generator	NIL	NIL
2. FUEL OIL		
Quantity (K. Ltrs.)	795	775
Total amount (Rs. Million)	10.02	10.23
Average rate (Rs.)	12604	13214
B. Consumption per unit of production:		
(a) Fused Cast Refractories:		
Electricity KWH/TON	NIL	3492
(b) Other Refractories:		
Electricity KWH/TON	895	716
Fuel oil KL/TON	0.61	0.65

- New Vitrified bonds for Precision grinding to replace the older generation bonds.
- Indigenous bond raw materials towards cost reduction in Vitrified product manufacturing.
- Indigenous raw materials used for manufacturing Organic products.
- New products for Soft Material Grinding.
- ALO/Norzon based high performance Coated Abrasive belts for metal working applications.
- Extended range of Polishing wheels for metal finishing applications.

Improvements in:

- Bonded Abrasive products through on-going projects aimed at improving the consistency of the process and the product.
- Coated Abrasive belt for forging industry.
- Maker technology to improve process consistency in manufacturing.
- Manufacturing methods for Non-woven Abrasives flat stock items for consumer & industrial applications.

(b) Ceramics:

Development of:

- Circular supercord batt for Grinding wheel industry.
- Sandwich Silicon-Carbide Mullite tiles for Ferrite Industry.

Improvements in:

- Product consistency by defining the range of product properties.

3. Future plans of action:

- (a) Technology adaptation from Saint-Gobain Abrasives Inc. & other Saint-Gobain plants in identified priority areas, for development of new and improved products.
- (b) Development of tools to support analysis of product performance at customers end.

4. Expenditure on R&D for the year ended 31st December, 2002:

Rs. Million

(a) Capital	Nil
(b) Recurring	3.39
(c) Total	3.39
(d) Total R&D expenditure as a percentage of total turnover	0.15%

Form B for disclosure of particulars with respect to Technology Absorption:

Research & Development (R&D):

1. Specific areas in which R&D was carried out by the Company:

- (a) Abrasives : Grains, Bonded, Coated, Super Abrasives & Non-woven.
- (b) Ceramics : Refractories and Monolithics.

2. Benefits derived as a result of the above R&D:

(a) Abrasives:

Development of:

- New Variant of Seeded Gel abrasive products for specific applications in the Bearing and Automotive industry.

Technology absorption, adaptation and innovations:

All throughout the year, through various visits and interactions with the Saint-Gobain R & D Centres, as well as other manufacturing locations, your Company has kept itself

informed on the latest trends in technology related to the abrasive field. This has helped us to continuously improve the manufacturing processes, improve efficiencies, and develop new products. Through all this, your Company has continuously been able to improve the product-service package provided to the customers.

Disclosure of particulars with respect to Foreign Exchange earnings and outgo:

Total earnings in foreign exchange for the year ended 31st December, 2002 was Rs. 163.58 Million and the total outflow was Rs. 344.42 Million. Details are given in Schedule 14.

ANNEXURE B TO THE DIRECTORS' REPORT

STATEMENT UNDER SECTION 217 (2A) OF THE COMPANIES ACT, 1956, READ WITH THE COMPANIES (PARTICULARS OF EMPLOYEES) RULES, 1975 AND FORMING PART OF THE DIRECTORS' REPORT.

NAME	AGE	DESIGNATION/ NATURE OF DUTIES	REMUNERATION RS.	QUALIFICATION	COMMENCEMENT OF EMPLOYMENT	LAST EMPLOYMENT	TOTAL EXPERIENCE (YEARS)
EMPLOYED THROUGHOUT THE YEAR							
MAHAJAN A. Y.	50	MANAGING DIRECTOR	5704988	M.A. (ECON), MBA (USA)	JUNE 1983	PROJ. CONSULTANT – STATE BANK OF INDIA	27
PEREIRA J. A. J.	54	V. P. – FIN. & CORP. SERVICES	2533312	B.Sc., FICWA, PGDM (IIM)	MAY 1975	NONE	28
SRINIVASAN V.	48	V. P. – MARKETING & COATED ABRASIVES	2681218	B.TECH., PGDM (IIM)	JAN. 1999	DY. GEN. MGR. – SUNDARAM FASTNERS LTD.	23
EMPLOYED FOR PART OF THE YEAR							
JOYKUTTY M. C.	59	V. P. – ENG. MATERIALS & SYSTEMS	2231738	B.Sc. (ENGG.), DMM	JAN. 1967	NONE	36

NOTES:

1. Total remuneration includes salary, commission, allowances, rent paid for providing accommodation, leave pay, group and accident insurance premium, Company's contribution to provident, superannuation and gratuity funds and also the monetary value of other perquisites. Payment made under Voluntary Retirement Schemes has not been considered.
2. All the above employees are employed on contractual basis.
3. None of the employees mentioned above is a relative of any Director except Mr. A. Y. Mahajan, Managing Director who is the son-in-law of Mr. N. D. Sidhva, Director of the Company.
4. Experience includes number of years service elsewhere, wherever applicable.

ANNEXURE C TO THE DIRECTORS' REPORT MANAGEMENT DISCUSSION & ANALYSIS REPORT

(Pursuant to clause 49 of the Listing Agreement with Stock Exchanges)

GENERAL REVIEW

Grindwell Norton Limited (GNO) is a subsidiary of Compagnie de Saint-Gobain (Saint-Gobain), a transnational French Group with sales exceeding 30 Billion. Saint-Gobain's businesses fall into three broad sectors of activity: Glass, Housing Products and High Performance Materials. GNO's businesses are a part of the two Divisions that comprise the High Performance Materials sector of activity. The two Divisions are:

1. Abrasives
2. Ceramics & Plastics

A brief outline and a review of GNO's major businesses is provided below:

1. ABRASIVES SEGMENT

The major businesses in this segment are:

- (i) Bonded Abrasives
- (ii) Coated Abrasives

GNO also manufactures and sells Super Abrasives.

(i) BONDED ABRASIVES Product & Plants

Bonded Abrasives, most commonly in the form of wheels but also in other shapes such as segments, sticks etc., are used for various applications ranging from polishing or lapping to removing high quantities of materials. The Bonded Abrasives Division has two plants, one at Mora and the other at Nagpur, Maharashtra, both of which are certified under ISO 9002.

Industry

The industry currently has two major players, one of which is GNO. GNO has a leadership position in several product-market segments.

Broad characteristics of this business are:

- High entry barriers in the form of high capital investment (though there are numerous small players in niche products and markets).
- Diverse industrial applications.

Key success factors are quality, cost and capability to provide total grinding solutions.

Applications

Bonded Abrasives are used for precision applications such as lapping, honing, superfinishing, race grinding, thread grinding, fluting, OD grinding, ID grinding, surface grinding etc. They are also used in rough applications such as snagging, tool sharpening, burr removal, abrasive parting off, weld preparation etc. Bonded Abrasives are used by a very large number of users. The variety is very high. GNO makes over 10,000 different products in a year.

Major User Industries

- Automobiles and Auto Components
- Steel
- Bearings
- Cutting Tools/Hand Tools etc.
- Fabrication

Development & Outlook

Saint-Gobain has a very strong R&D set up and GNO has full access to the new products and processes

developed by R&D or at any of the numerous plants all over the world. GNO is therefore well placed to serve the future requirements of customers. The worldwide organisation is also of great help in boosting exports from India.

After some years of stagnant/declining demand for Bonded Abrasive products, demand improved in 2002. This was due to the strong growth in the Commercial Vehicles and Motorcycle Segments of the Automobile Industry, exports of Auto Components and the higher output of the Steel and Bearing Industries. Over the medium term, Bonded Abrasives demand is expected to grow by 3% to 5% per annum.

Currently, imports have a small share of the total market. However, since import duties will continue to fall in the coming years, imports will grow. This will also lead to a pressure on prices of Bonded Abrasive products.

GNO has taken necessary steps to become a lower cost producer and has reoriented its marketing efforts to render significantly superior levels of service and, thereby, successfully meet both domestic and international competition. Simultaneously, by focusing on exports, GNO will ensure that sales volumes maintain a growing trend.

(ii) COATED ABRASIVES

Product & Plants

Coated Abrasives are flexible abrasives used in the form of sheets, belts and discs. These are manufactured by coating a layer of abrasive grains on material such as paper, fibre, cotton cloth or nylon. They are used in grinding, sanding and polishing operations on materials like metal, wood and leather.

GNO's manufacturing facilities at Bangalore, Karnataka and Nagpur, Maharashtra are ISO 9002 certified.

Industry

The domestic Coated Abrasives sector has four major players including GNO. There are also a number of small regional manufacturers and converters. GNO is a leader in several segments of the domestic market.

The characteristics of this sector are:

- Low entry barriers (low capital requirements) for low-end products.
- Low threats from substitute products
- Diverse industrial applications.

The key requirements for success are:

- Product range & Brand image
- Distribution network
- Short delivery periods
- Cost competitiveness
- Quality

Major End Users

- Automotive industry
- Auto Ancillaries
- Auto-after markets
- Ferrous & Non-ferrous castings & forgings
- Metal fabrication industry
- Furniture and plywood
- General Engineering

Development & Outlook

While in 2002, the domestic market has witnessed strong growth (in excess of 5%), over the medium term, demand for Coated Abrasives is expected to grow at about 5% per annum. With the lowering of tariff barriers, competition is expected to increase in high-end application specific products, whilst the high volume segments will continue to be under severe price pressure due to local competition. GNO with its strengths in global R&D and sourcing, product development, and a strong distribution network, is fully prepared to meet the challenge. We also have reasonable prospects for being identified as the global sourcing base for niche products for Saint-Gobain worldwide.

2. CERAMICS & PLASTICS SEGMENT

The major businesses in this segment are:

- (i) Silicon Carbide (ii) Refractories

GNO also converts and sells a range of Performance Plastics products.

(i) SILICON CARBIDE

Product & Plant

Silicon Carbide grains are used primarily as raw material in the manufacture of abrasives, refractories and for stone polishing. Silicon Carbide is manufactured at Tirupati in Andhra Pradesh.

Industry

In the domestic market there are three major manufacturers (including GNO) of Silicon Carbide. GNO is the market leader. This market is also catered to by imports mainly from China. The key requirements for success in the industry are cost and quality. Entry barriers are high by way of capital investment and technology.

Development & Outlook

The business is expected to grow at a steady pace as in the previous years and we expect to strengthen our market position further. However, the level of profitability of the business will depend primarily on the final outcome of the appeal filed by GNO and other affected companies, in the Honourable Andhra Pradesh High Court, challenging the steep increase in wheeling charges made by the AP Transco.

The long term viability of this business is dependant on having power available at a reasonable cost. The Company's future course of action will depend on the developments in this regard.

(ii) REFRACTORIES

Product & Plant

Refractories are used for processing ferrous and non-ferrous metals and as kiln furniture to fire ceramic wares. They are also used as filtering media. GNO manufactures silicon carbide refractories and cordierite and mullite kiln furniture. The plant is located at Bangalore, Karnataka.

Industry

The main customers are the non-ferrous and ceramic industries. In the domestic market there are two manufacturers (including GNO) for silicon carbide and mullite refractories. Cordierite refractories are

manufactured by a number of players. The key requirements for success in the industry are technology and quality. Manufacturing is relatively capital intensive. This, and technology, are the barriers to entry.

Development & Outlook

The Refractories business of the Company is expected to remain steady at the current levels. The Company is looking at options to increase the product offerings in association with the parent company.

RISK AND CONCERNS

As in other industries, there are challenges due to increased global competition, apart from domestic competition. GNO is fully preparing itself to meet these challenges. GNO's perceptions of certain specific risks are as under :

1. Industry, Market & Technology:

(a) Abrasives:

(i) **Industry & Market:** The Abrasives business caters to a number of industries such as Automobiles, Auto components, Steel, Bearings, General Metal Fabrication, Woodworking etc. The dependence on any single industry segments is less than 15%. Demand for abrasive products can get affected if all sub-segments of the industry perform badly at the same time. Normally, this does not happen. In order to minimize the impact of such downturn, if any, GNO has been putting in efforts to develop Export markets. Over the years, exports have grown and now account for 9% of total abrasives sales. These sales are not concentrated in any single country, but are spread over more than 20 countries spanning Asia Pacific and Africa. Within India, sales are spread across 15 Branch offices located across all parts of India, without any single branch having a very high weightage. Similarly, there are large number of customers serviced directly and several dealers for servicing small and medium customers. The largest customer accounts for less than 2% of total sales and largest dealer accounts for less than 5% of total sales.

(ii) **Technology:** Abrasives has been used over a very long period of time and technological changes in terms of applications are gradual. Since India typically lags in these, GNO knows likely changes much before they reach India, which gives time to be prepared well in time. Saint-Gobain is the World Leader in Abrasives. It has a very strong R&D set up in USA with regional R&D centers located elsewhere. Both basic and applied research takes place at these R&D centers. GNO has full access to all the research and technology developments.

(b) Ceramics & Plastics:

(i) **Industry & Market:** Abrasives, Refractories and Construction form the three top customer segments for Silicon Carbide. Each of these sectors comprise of large number of customers, which makes this a good portfolio. In Abrasives and Refractories, our own divisions (affiliates) are major consumers. Construction sector in general has very little linkage with the other two sectors, which makes the overall customer portfolio more balanced. The top 5 non-affiliate customers account for 49% of the non-affiliate business and

80% of the non-affiliate business is accounted for by 15 customers. In addition, we service several small customers in different businesses through our distribution channels.

(ii) **Technology:** The technology of manufacturing Silicon Carbide has had very little change worldwide, since the present process was started. As for the increased use of Silicon Carbide in India, the technological changes needed at some of the user industry segments is still coming in, but gradually. Since India is typically a few years behind in adapting these technological changes, GNO gets ample time to prepare for these, considering its exposure to these developments elsewhere in the world through the Saint-Gobain network. GNO has full access to all the research and technology developments undertaken by Saint-Gobain in this regard.

2. Financial:

GNO's financial management has always been governed by prudent policies, based on conservative principles. Due to this, GNO has a very low debt-equity ratio of 0.07:1 and there are no outstanding term loans. GNO's foreign currency exposure on account of imports has been appropriately covered.

3. Legal and Statutory:

(i) **Contingent liabilities:** Details of Contingent liabilities are given in Schedule 14.

(ii) **Statutory compliance:** GNO ensures statutory compliance of all applicable laws and is committed to timely payment of all statutory dues.

OVERALL PERFORMANCE

In 2002, GNO sales have increased significantly by 16% partly due to good growth of certain important end-users of Abrasives (Auto, Steel) and partly due to gains in market share. Exports have risen to 7% of turnover. Similarly, profits have substantially increased during the year, as compared to the previous year, on account of the growth that has taken place in Abrasives and the various cost control and restructuring measures undertaken in the past two years.

INTERNAL CONTROL SYSTEMS

GNO has well developed and adequate Internal Control Systems, which provide assurance of properly recording of the transactions of its operations in all material respects and providing of protection against significant misuse or loss of company assets. These various systems have adequate checks and balances and improvements in controls are regularly made. GNO has a strong internal audit function. The internal audit is oriented towards management audit, review of controls and operational improvements. GNO had already constituted an Audit Committee in December, 2000. All the significant audit observations and follow-up actions are reported to the Audit Committee.

SEGMENTAL FINANCIALS

GNO has identified two segments in line with the Accounting Standard 17 on Segment Reporting. The segments are Abrasives and Ceramics & Plastics. Details of Segmental financials are given in Schedule 14.

A. Y. MAHAJAN
MANAGING DIRECTOR

Mumbai: 6th March, 2003