

2001/02  
ENVIRONMENTAL REPORT

**Gabriel**<sup>®</sup>

## SOUND GREEN ARGUMENTS FOR USING QUALITY FURNITURE FABRICS FROM GABRIEL A/S

Gabriel A/S is Europe's biggest manufacturer of quality woollen furniture fabrics.

Gabriel A/S does its own processing, starting with wool from New Zealand and ending with the finished fabric ready for use in upholstery.

The purpose of this environmental report is to provide information to our customers, suppliers, employees, the authorities, shareholders, the local community and others interested in Gabriel A/S's environmental concerns.

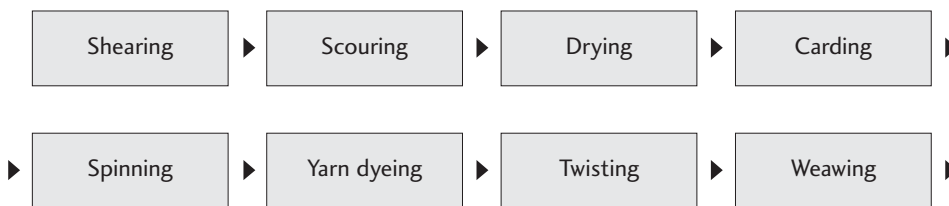
The report covers Gabriel A/S's factory in Aalborg.

This environmental report was prepared in compliance with the requirements of the EMAS regulation on industrial companies' voluntary participation in a common scheme of environmental management and auditing, and with the provisions of Section 35a of the Danish Environmental Protection Act on green accounts with associated regulations.

Gabriel A/S's environmental management is certified under DS/EN ISO 14001.

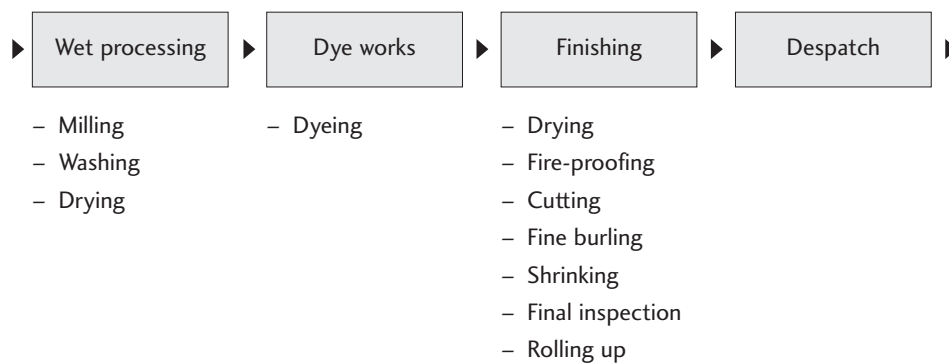
Gabriel A/S's quality assurance is certified under DS/EN ISO 9001, the international standard for quality assurance.

### ACTIVITIES BEFORE GABRIEL'S AALBORG FACTORY



1

### ACTIVITIES AT GABRIEL'S AALBORG FACTORY



### ACTIVITIES AFTER GABRIEL'S AALBORG FACTORY



## CONTENTS

Company information .....	2
Profile of Gabriel .....	3
Gabriel A/S's objectives .....	3
Quality and environment .....	4
Gabriel A/S's environmental policy .....	5
The environmental management system .....	6
Annual report of management .....	7
The working environment .....	9
Employee participation .....	9
Environmental approvals .....	10
Environmental action programme 2001/2002 .....	10
Further information .....	10
Environmental auditor's certificate .....	11
Environmental data .....	12
Notes .....	15
Accounting policies .....	16

## COMPANY INFORMATION

### The company

Gabriel A/S  
Hjulgagervej 55  
9000 Aalborg  
Reg. no. 176574  
Danish VAT no. 12 72 13 07  
Telephone: +45 96 30 31 00  
Fax.: +45 98 13 25 44  
www.Gabriel.dk  
E-mail: mail@gabriel.dk

### Group relationships

Gabriel A/S is a wholly owned subsidiary of the publicly listed company Gabriel Holding A/S.

### Sector

Textile industry

### Principal activities

Production of furniture fabrics including the processes of dyeing and finishing.

### Listing

Gabriel A/S's dye works in Aalborg is the listed concern under Chapter 5, point E6 "Textile bleaching works and textile dye works" of the Danish Environmental Protection Act.

### Supervisory authority

City of Aalborg

### Financial year

01.10.01 - 30.09.02

### Number of employees

118

### Ekternal auditor and accredited environmental verifier

Danish Standards Association Certificering

### NACE code

17.4 Manufacture of made-up textile articles, except apparel.



# PROFILE OF GABRIEL

## PHILOSOPHY

Innovation and value-creating partnerships are keywords in Gabriel's philosophy.

Gabriel is a niche company which develops, manufactures and sells furniture fabrics and related textile products for areas of use in which there are mandatory requirements concerning special product properties, design, logistics, and documented quality assurance and environmental management.

### Vision

With furniture fabrics as its area of expertise, Gabriel aims to be the preferred partner of and supplier to global and international market-leading manufacturers of furniture, seats and upholstered surfaces.

## FINANCIAL OBJECTIVES

Gabriel is to continue to generate growth and profitability of a size which is attractive to its shareholders. The overall financial objective is to generate return on invested capital (ROIC) in excess of the cost of capital. The cost of capital has been fixed at 15% before tax under the current capital structure.

Provided that economic conditions are stable, the group aims at achieving

- an average annual 15% revenue increase
- an average annual 10% increase in results.

The prerequisite for achieving these objectives is that Gabriel is a sustainable company for the community in which it exists.

### Strategy

Gabriel seeks to fulfil its vision and objectives via the group's strategy, which is implemented with focus on five core processes:

1. Global key account sales activities in the three sales divisions Gabriel Contract – fabrics for commercial furniture, Gabriel Home – fabrics for private furniture, and Gabriel Transport – seating fabrics for trains, aircraft, buses and ships
2. Constantly strengthened and focused product and design development
3. Constantly focused product range development
4. Constant efforts to achieve logistical optimisation and rationalisation
5. Constant efforts to ensure competitiveness in price

Possible acquisitions and alliances are under constant evaluation with a view to improving the group's competitiveness and value-creating activities.

### Innovation

Close collaboration within Gabriel's network of customers, users, suppliers, consultants and competent employees ensures optimal evaluation of new ideas and possibilities.

New products and concepts must represent innovations which offer added value to customers and users.

Gabriel attempts to ensure that at least 30% of its turnover derives from products launched less than five years ago. This objective must be met by the end of the 2004/2005 financial year.

## Market segments

Gabriel's market segments are covered by three sales divisions:

- Gabriel Contract (office, conference, hospital and care, hotel, restaurant, theatre and concert, cinema, education, airports etc.)
- Gabriel Transport (train, plane, bus, car, ship)
- Gabriel Home (upholstered furniture, chairs)

## Raw materials

Wool is Gabriel's most used raw material. The properties of the wool fibre are unique and, for use in furniture fabrics, unmatched by any other natural or synthetic fibre.

Gabriel possesses or has access to the professional competence and the special manufacturing plant required for leadership in this niche area.

## Employees

All employees at Gabriel know and work to achieve our common goal.

Gabriel wants to attract and retain ambitious, qualified employees who seek and accept challenges. The daily dialogue and delegation of responsibilities creates dynamism and efficiency. Constant changes, demands for fast handling and adaptation require intellectual and professional flexibility in all staff.

The individual employee's qualifications and professional competence are kept up-to-date via job development and relevant training.

Gabriel has a good and informal work climate based on trust, reliability, mutual respect and an awareness of shared responsibility.

## Social responsibility

Via its close working relationship with the City of Aalborg, Gabriel regularly employs people with a special need for training and support in order to gain a place in the labour market.

## QUALITY AND ENVIRONMENT

Gabriel's position as a quality and environmentally conscious company is evidenced by its certification under ISO 9001:2000 and 14001 and the EMAS scheme.

Gabriel A/S is licensed to apply the EU flower eco-label, which ensures that the employees in production, the users of the furniture fabrics and the external environment are not exposed to unhealthy conditions.

Gabriel's quality and environmental objectives are as follows:

Services provided by Gabriel must correspond accurately to customer needs and expectations. The company's production and distribution must proceed with due respect for the need to ensure a continuing reduction in resource consumption and emissions which might impact upon the environment.

*Do things right the first time* is the standing motto for planning and implementation of the company's activities.

## Corporate Governance

The board of Gabriel Holding has evaluated the Nørby Committee's recommendations regarding Corporate Governance and has taken a positive view of them. The board finds that as a whole, Gabriel's articles of association, attitudes and intentions are in accordance with the recommendations.

# GABRIEL A/S'S ENVIRONMENTAL POLICY

The environmental management system covers all functions at Gabriel, including piece-dyeing and finishing. The system covers Gabriel A/S's factory in Aalborg.

Energy consumption has an important impact on the environment. Energy management is an integral part of Gabriel's environmental management.

Energy management covers production processes and supply systems with a significant energy consumption. Environmental goals and the environmental action programme must include energy considerations and ensure ongoing improvements in energy consumption.

The company's general objectives are documented in a business plan prepared once a year for the period 1/10 to 30/9.

Measurable environmental goals are set for all activities. These goals, together with responsibility and competence, must be known by all employees.

Cleaner technology and environmental improvements are introduced on an ongoing basis with due consideration of their technical and economic consequences and the prevention of pollution.

Gabriel A/S conducts an open and close dialogue on environmental requirements with the authorities. The company is pledged to respect relevant legislation and relevant statutory requirements in the area of the environment as well as other provisions to which the company has committed itself.

Gabriel prepares an environmental report in connection with the end of the financial year. The report includes information on significant environmental impacts and objectives. The environmental report is available to the public and is reviewed with all employees at departmental meetings.

Those of the company's employees in contact with customers are able to provide correct information on Gabriel's environmental objectives and policies. Guidance must be provided to customers on significant environmental aspects of the use and ultimate disposal of the company's products.

The company's subcontractors must be selected on their ability to comply with environmental requirements and their willingness to enter into an open and close collaboration to achieve optimal solutions.

Contractors working with Gabriel A/S in Aalborg must comply with the same environmental requirements applying to Gabriel A/S.

# THE ENVIRONMENTAL MANAGEMENTSYSTEM

The environmental management system is an integral part of Gabriel's total management system and covers the company's management, core and support processes.

The relationships between the individual processes are specified, and each process has a set of rules specifying responsibility, input and output and how the activities are to be carried out.

Gabriel's management system is audited by Gabriel A/S and the Danish Standards Association. The assessments include an evaluation of whether the system is functioning in practice and complying with the requirements specified for it.

# ENVIRONMENTAL REPORT OF MANAGEMENT

Gabriel's environmental management is carried out under the environmental standard DS/EN ISO 14001 and the EMAS scheme on voluntary participation in a common scheme for environmental management and auditing by industrial companies as well as the provisions in Section 35a of the Danish Environmental Protection Act on green accounts with associated regulations.

Implementation of the environmental action programme for 20001/02 and progress in the field of environmental impacts have been assessed by management as satisfactory.

## The EU Flower

Gabriel A/S has been granted a licence by the Danish Environmental Protection Agency for eco-labelling with the EU Flower on the main range of the company's piece-dyed woollen products.

The criteria for eco-labelling are based on the whole product life cycle from production of raw materials to disposal. Specific requirements are set with regard to e.g. the type and content of pesticides in the raw wool, substances in the waste water, and the content of heavy metals in dyes.

The EU Flower guarantees the safety of employees during all production processes, the user of the fabric, and the environment.

Labelling with the EU flower may be carried out on sample materials or on displayed furniture, making it easy for the customer to select an environmentally correct fabric.

7

## Reduction in water consumption

A number of activities were implemented during the year to reduce water consumption. The use of environmentally friendly bacting oil and washing agents has enabled abolition of the pre-wash in the piece-dyeing process.

Quality improvements in processes in both washing and dyeing have resulted in fewer retreatments.

The use of new piece-dyeing machines with low water consumption is ranked highly in the dye-works.

## Reduction in consumption of chemicals

The consumption of chemicals has been reduced by process optimisation. Fewer retreatments are now required.

Recipes have been optimised and doses of chemicals have been minimised during the year.

## Better utilisation of process water from the heat exchanger

Calculations have shown that significant energy savings can be realised by connecting the washing section's water supply to the heat recovery system for the dye-works.

The investment will be made if the quotation for the installation is such that a satisfactory return will result.

### **Installation of new ventilation system in the dye-works**

A new ventilation system will be taken into use shortly after the end of the financial year. Heat recovery and the working environment are optimised in the design of the system by introducing extraction points directly at dyeing machines. This is the most efficient way of removing water vapour.

### **Initiatives concerning environmental considerations at subcontractors' premises**

Environmental considerations were followed up during the year at the main subcontractors' premises. Visits were made to spinning mills, weaving mills, dye-works and wool suppliers.

The initiatives included specifying dyes and chemicals which will ensure that deliveries do not contain substances hazardous to the environment.

Environmental goals for improvements to significant environmental impacts such as energy and waste are being set up.

### **Establishment of new emergency plans**

Emergency plans were improved and employees were trained accordingly.

Emergency exercises were carried out with respect to fire and chemical spills from the production area.

### **Criteria for determination of significant environmental impacts**

All environmental relationships and their impacts have been mapped at the Aalborg site. Following Gabriel's environmental policy, significant environmental impacts are determined on the basis of the following criteria:

- The quantity of energy consumed and its composition are relevant in industrial processes as energy consumption is considered a contributing cause of global warming.
- Waste water from wet processes has a significant impact on groundwater and the marine environment. The total quantity of chemicals and dyes used has a significant environmental impact. The effect of substances on the aquatic environment is assessed on the basis of a score system prepared by Ringkjøbing County.
- The total quantity of waste is an indicator of unnecessary resource consumption.
- The importance of environmental impacts is expressed by setting up key figures which show the impact relative to production. The goal is to minimise the relative environmental impact.
- Information in safety data sheets (which the supplier must prepare for all products which can affect safety or the environment) are used in the evaluation of environmental impacts.
- The selection of significant environmental impacts is made in cooperation with consultants, institutes, authorities and others with substantial expertise in the area of the environment.

## Assessment of environmental impacts in the factory area

Total relative energy consumption was 6% lower than last year. Energy savings were achieved via increased use of new dyeing machines, and reductions in water consumption also have a positive effect.

The relative quantity of waste water was 18% less than last year and 8% below target. This result was achieved on the basis of activities in the environmental action programme for 2001/02.

The relative quantity of waste was 11% lower than last year.

The relative consumption of chemicals was 10% less than last year, but 3% above target. The deviation from target occurred because more products than expected were fire-proofed at customer request. A continued reduction in consumption of chemicals is part of the 2002/03 environmental action programme.

The environmental data are given on page 12.

## Assessment of indirect environmental impacts

Indirect environmental impacts at suppliers' premises are determined on the basis of the same criteria of significance used in the assessment of Gabriel's activities in Aalborg.

The environmental audits made at selected subcontractor's premises include charting of environmental considerations and environmental management, and assessment of compliance with ISO 14001 requirements. The criteria for labelling with the EU Flower are also used.

Environmental impacts are also evaluated by carrying out life cycle analyses as described in the following reports published by the Danish Environmental Protection Agency.

- Life cycle analysis (LCA) of textiles from Gabriel A/S – documentation report under ISO 14040, May 2000.
- Life cycle analysis and product-oriented environmental management at Gabriel A/S. May 2000.

Significant indirect environmental impacts at subcontractors' premises include:

- energy consumption and waste water in the scouring of raw wool
- energy consumption and carding waste in the spinning of yarn
- energy consumption and waste water in the dyeing of yarn
- transport of raw materials
- transport of finished goods.

The environmental qualities of Gabriel's products ensure that there is no impact on the environment from either processing or many years of use by the consumer. The products can be handled after their useful lives as ordinary non-hazardous waste or recycled, as they contain no hazardous substances such as heavy metals.

## THE WORKING ENVIRONMENT

Gabriel A/S ranks employee safety, health and well-being highly.

Physical conditions were improved during the year in the form of modernisation of the canteen, the kitchen and the dyeing department. A new ventilation system was being installed at the end of the year. These activities have significantly improved the working environment.

## EMPLOYEE PARTICIPATION

Delegation of responsibility and a project-oriented work procedure ensure the individual employee an influence on his or her own work routines at Gabriel.

Employees are involved in environmental management under Gabriel A/S's environmental management system. Environmental matters are considered at departmental meetings and areas requiring attention are determined.

## ENVIRONMENTAL APPROVALS

Gabriel A/S has environmental approval under Chapter 5 of the Danish Environmental Protection Act and has a permit for the discharge of waste water to public drains and a permit to take river water for processing purposes.

## ENVIRONMENTAL ACTION PROGRAMME 2002/2003

The environmental action programme includes the following components:

- Extension of knowledge of environmental labelling with the EU Flower: training of employees in the fundamentals of labelling with the EU flower and marketing of the label to customers and users.
- Changes to technical installations in connection with new connection to municipal waste water system: removal of current waste water pumps and establishment of new waste water line for connection to new municipal pumping station. The installation is constructed to minimize the risk of leakage.
- New waste water permit: a new waste water permit is being prepared in cooperation with the City of Aalborg. The permit is based on an altered connection which will improve the basis for a continued expansion of production.
- Reduction in consumption of chemicals via process optimisations: the goal is to reduce consumption from 113 to 110 grams per metre.

Responsibility for implementation of the various activities in the environmental action programme has been assigned. The activities will be implemented by 30.9.2003.

Management regularly follows up on implementation of the activities in the environmental action programme.

The deadline for the 2002/2003 environmental report is 31 January 2004.

## FURTHER INFORMATION

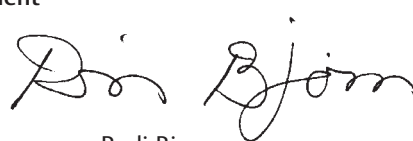
Please contact Gabriel A/S if further details on the company's environmental issues are required.

Aalborg, 01.11.02

Management



Jørgen Kjær Jacobsen



Rudi Bjørn

# ENVIRONMENTAL AUDITOR'S CERTIFICATE

DANSK STANDARD

## EMAS Validation of environmental statement DS-Attest nr. 239.1

This is to certify that an environmental statement of the company

**GABRIEL A/S**  
Hjulmagervej 55  
9100 Aalborg

has been prepared in conformity with the relevant requirements laid down in the Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

Reference to the environmental statement:

**Environmental Statement 2001/2002, dated 1 November 2002, written in Danish**

DANSK STANDARD has verified this statement written in Danish and does not vouch for translations of the environmental statement into other languages

Reference to the environmental management system:

**Environmental Management Manual of Gabriel A/S, edition dated 12 September 2002**

NACE code:

**17.4 Manufacture of made-up textile articles except apparel**

On the basis of an examination of the environmental management system mentioned above, including the environmental policy, environmental programmes and audit procedures, the DANSK STANDARD hereby certifies that the environmental policy has been established so that it meets the requirement of Article 3 and relevant requirements in Annex I of the Regulation referred to; that an environmental programme and an environmental management system are in place and comply the relevant requirements in Annex I of the regulation; that the environmental audit has been carried out in accordance with the relevant requirements in Annexes I and II of the Regulation; that data and information in the environmental statement are reliable and adequately cover all the significant environmental issues of relevance to the site and comply the relevant requirements in Annex II, VI and VII, and that the industrial activities of the company correspond to the above NACE code.

  
Jørgen Larsen  
Management representative

2002-11-13  
Date of issue

  
Tommy Lund  
Lead auditor

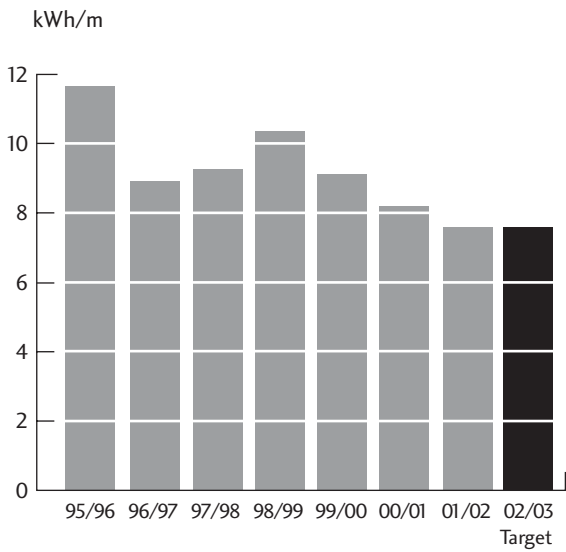
  
DANAK  
REG. NO. 8833

  
DS  
CERTIFICERING  
DANISH STANDARDS ASSOCIATION  
Køllevej 4, 2920 Charlottenlund

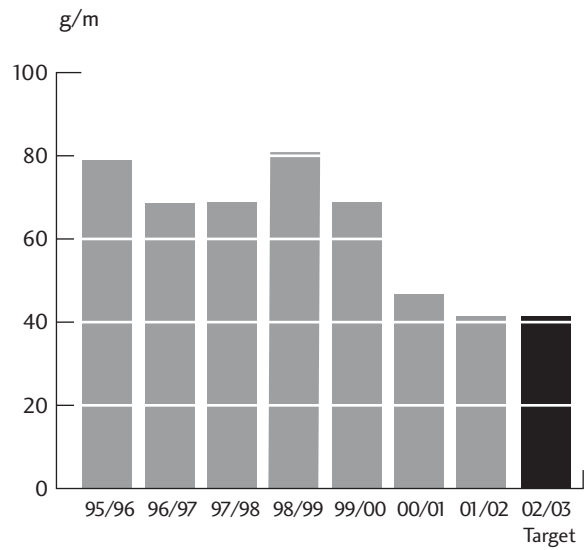
# ENVIRONMENTAL DATA

	2002/03 Target	2001/02 Actual	2001/02 Target	2000/01 Actual	1999/00 Actual	1998/99 Actual	1997/98 Actual
<b>Energy</b>							
Natural gas (m <sup>3</sup> )	-	549760	-	741809	761985	705587	621189
(m <sup>3</sup> /m)	0,49	0,49	0,54	0,54	0,61	0,67	0,60
(KWh/m)	5,29	5,29	5,83	5,83	6,59	7,24	6,48
District heating (m <sup>3</sup> )	-	29589	-	34684	43345	43679	29732
(m <sup>3</sup> /m)	0,025	0,026	0,025	0,025	0,03	0,04	0,03
(KWh/m)	1,01	1,05	1,01	1,01	1,22	1,62	1,22
Electricity (KWh)	-	1424000	-	1749000	1607400	1583600	1620700
(KWh/m)	1,26	1,26	1,27	1,27	1,29	1,50	1,56
Total energy (KWh/m)	7,56	7,60	8,11	8,11	9,10	10,36	9,26
<b>Waste water</b>							
Waste water (m <sup>3</sup> )	-	105062	-	155840	142652	120626	117928
(l/m)	93	93	104	113	115	114	113
<b>Waste</b>							
Chemical waste (kg)	-	490	-	511	0	0	0
Industrial waste (kg)	-	47720	-	65190	85091	85650	71690
(gram/m)	42	42	47	47	68	81	69
Cardboard for recycling (kg)	-	22700	-	34680	28900	-	-
Plastic for recycling (kg)	-	3640	-	2780	810	-	-
<b>Chemistry</b>							
Chemicals (kg)	-	127542	-	172899	150969	139274	131923
(g/m)	110	113	110	126	121	132	127
Dyes (kg)	-	12523	-	11640	14290	12427	11770
(gram/dyed kg)	-	25	-	25	24	24	24
<b>Consumption of raw/ materials/reticulated water</b>							
Yarn (kg)	-	710042	-	1186557	996849	591118	-
Sodium sulphate (kg)	-	55650	-	77700	79800	64050	54950
Sodium chloride (kg)	-	73470	-	86250	62650	98290	90960
Reticulated water (m <sup>3</sup> )	-	8365	-	10443	12522	12219	8927

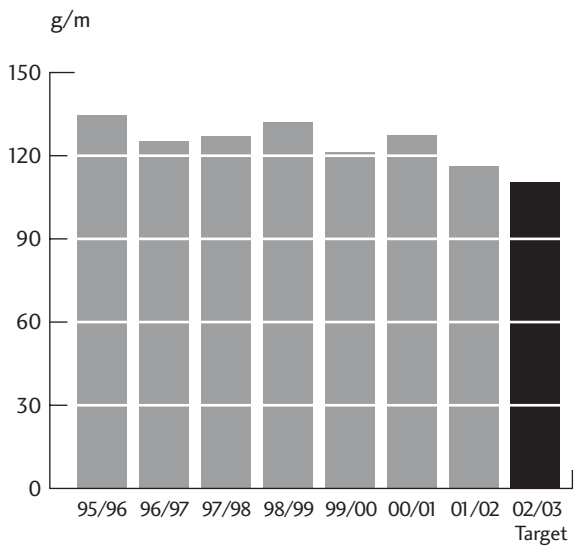
**DEVELOPMENT OF THE TOTAL ENERGY CONSUMPTION**



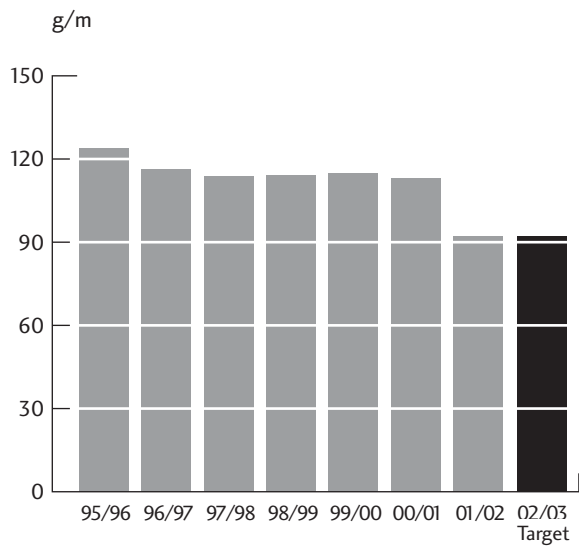
**DEVELOPMENT OF INDUSTRIAL WASTE**



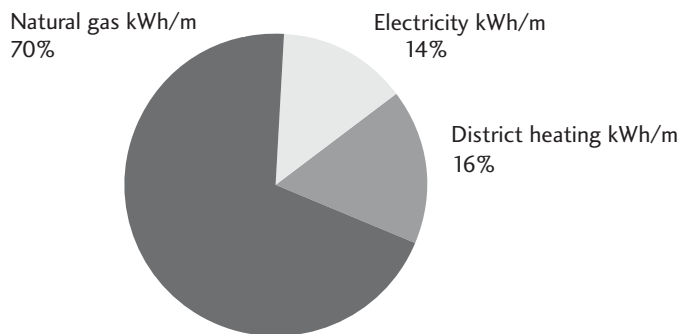
**DEVELOPMENT OF CHEMICAL CONSUMPTION**



**DEVELOPMENT OF WASTE WATER**



**DEVELOPMENT OF THE CHEMICAL CONSUMPTION**



### **Noise**

The noise limits specified in the City of Aalborg's environmental approval (Chapter 5) were complied with. Production proceeds under stricter noise limits outside normal working hours.

### **Gaseous emissions**

Requirements concerning gaseous emissions were complied with and the use of natural gas as energy source ensures a minimal environmental impact.

# NOTES

## Statement of goals

Goals for improvements are given in bold type. Other goals are to be maintained.

## Energy

The unit "m" specifies metres of furniture fabric with width varying from 1.3 to 1.7 m.

1 m<sup>3</sup> natural gas = 10.8 kWh (source: Dansk Naturgas A/S).

A cooling of 35°C is used for conversion of m<sup>3</sup> district heating to kWh. The heated production area was extended in 1999/00.

Total energy is the sum of energy consumption in kWh/m from natural gas, district heating and electricity.

Relative electricity consumption was affected by increased external weaving from and including 1998/99.

## Waste water

Chromium and copper have not been included since 1994/95 as metallic dyes were not used in subsequent years.

## Waste

Waste recorded does not include construction and metallic waste from renovation of buildings and plant.

## Dyes/Chemistry

The highest consumption of chemicals is for acetic acid, soaps and the fire retardant Flovan (which has an efficient fire-retarding effect and is an environmentally friendly product complying with the requirements of the EU Flower).

Consumption of dyes depends primarily on the sales mix. Dark colours require greater quantities of dyes.

New chemicals and dyes are selected on the basis of the substances' environmental and quality properties. The assessment system uses a score system prepared by the textile and clothing industry, Ringkjøbing County and a number of municipalities. The system assesses impacts on the aquatic environment.

Gabriel works with the suppliers of chemicals/dyes Clariant and Ciba, which possess a high level of expertise within the area of the environment.

## Consumption of raw materials/reticulated water

Sodium sulphate is used in dyeing processes and sodium chloride is used to soften river water for dyeing.

Other raw materials consist primarily of wool from New Zealand and purchased woollen worsted.

Reticulated water accounts for only a minor part of water consumption as processing is based on river water. Potable water resources are thus spared.

# ACCOUNTING POLICIES

This environmental report was prepared in compliance with the requirements of the EMAS regulation, including verification. The report thus also complies with the requirements of Section 35a of the Danish Environmental Protection Act and associated regulation on green accounts.

The report covers the period 1 October 2001 - 30 September 2002 and summaries were made on the basis of the usual periodisations of the company's activities.

The environmental report includes both absolute quantities and key figures.

Information in the report is based on data from ongoing internal readings and reports under the environmental management system.

