



The Floor is Yours



DESSO Carpet to the Test

Dedicated to Education

DESSO

A CRADLE TO CRADLE COMPANY



This book is printed entirely on Cyclus paper, a paper made with 100% post-consumer recycled fibers and manufactured with Green-e certified non-polluting, wind-generated electricity. The paper is certified under the Blue Angel Environmental Standard for Printing and Writing Paper, and is certified by standards, which promote environmentally appropriate, socially beneficial and economically viable management of the world's forests. Lead, cadmium, mercury and hexavalent chromium are not used in our coating formula. Soy, non-petroleum based inks were utilized throughout this report.

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent- or other industrial or intellectual property rights.
Desso © 2008.

CONTENTS

Successful Learning Establishments Are More Likely To Have Carpet

Better Air Quality

Breathing in Carpeted Environment

Safer Environment

Carpet Improves Acoustics

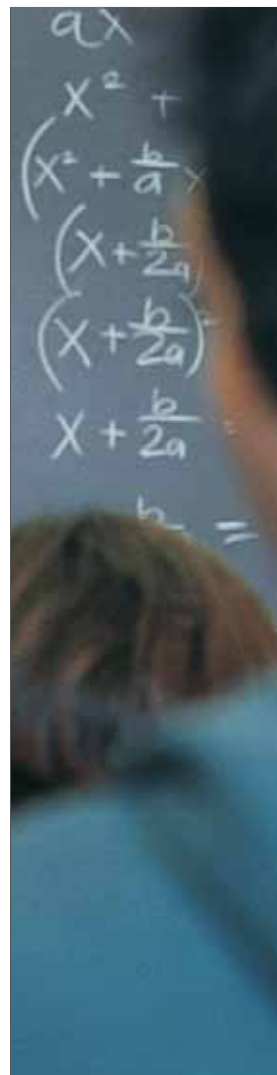
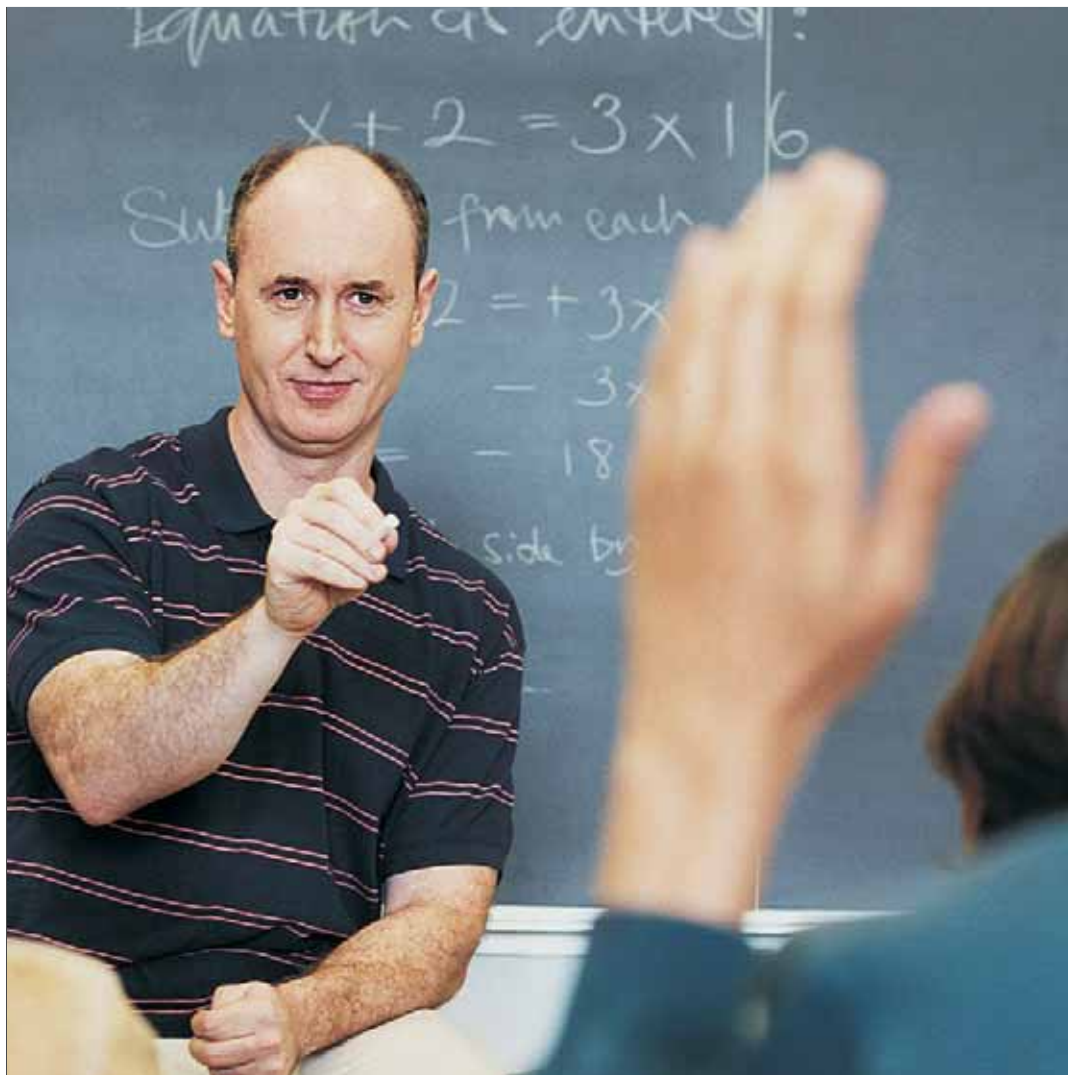
Carpets are the most economic flooring solution

Summary

“SUCCESSFUL LEARNING ESTABLISHMENTS
ARE MORE LIKELY TO HAVE CARPET”

TRUE FALSE

TRUE! DESSO carpet contributes to an atmosphere of learning: Carpet can help to create appealing and attractive school environments where teachers want to teach and students want to learn.



HOW A DESSO CARPET CONTRIBUTES TO AN ATMOSPHERE OF LEARNING

Poor educational performances in many of our schools are increasingly being linked to shabby and deteriorating facilities within these failing establishments.

Schools are special environments that exist for the purpose of teaching and learning. But, for effective learning to take place, it is essential that the right educational environment is created. Schools with unappealing surroundings are likely to experience a rising number of complaints about environmental quality and health. This will inevitably be combined with a decreasing interest in either teaching or learning.

Carpet can help to create appealing and attractive school environments where teachers want to teach, and students want to learn.

Studies of high performance schools have found that academically successful establishments radiate a sense of well-being that is the essence of a healthy environment. These schools convey a message that someone cares.

Healthy and effective school environments result from a passionate desire and determination to achieve excellence. High performance is inevitably the hallmark of a well-managed school.

High performance schools also tend to manifest common traits that are complemented and enhanced by carpet. For example:

- A high performance school is designed to reduce stress, and will be comfortable and heated to a consistent temperature. Carpet is soft and radiates warmth.
- Successful schools provide both space and opportunities for students and teachers to spread out, reflect, interact, exchange information, and to examine and test ideas. Carpet provides a convenient and comfortable surface upon which teachers and students can sit – hence the popularity of ‘carpet time’ as a key element in learning to read.
- A top school will strive to achieve student-friendly conditions throughout the entire building. Its attractive and inviting appearance ensures that students and teachers want to be there, and that the school is embraced by the local community. Carpet colours and patterns are designed to be aesthetically pleasing and inviting.
- Good quality schools enhance the atmosphere of learning through adequate natural lighting and effective noise control. Carpet dampens noise, absorbs light and reduces glare.

Taken together, carpet boasts qualities and environmental benefits which can play a significant role in attracting students and teachers, and in creating a productive learning environment.

2

“WHEN THE CLASSROOM IS CARPETED
AIR QUALITY BECOMES BETTER”

TRUE FALSE

TRUE! DESSO carpet has shown to perform better than other coverings in terms of its influence on air quality. It retains particles that other surfaces release.



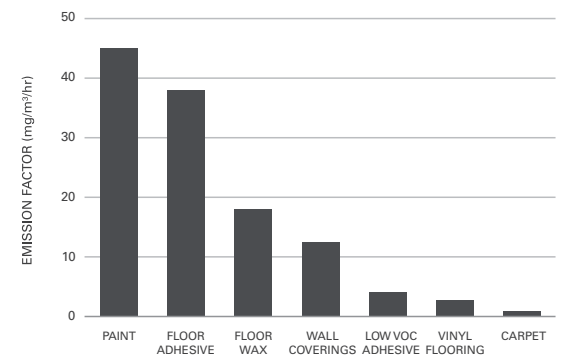
CARPET AND INDOOR AIR QUALITY

Modern buildings are designed to be virtually airtight in the quest for energy-efficiency - but these sealed units suffer the side-effect of poor indoor air quality, which becomes a major concern. Again, though, carpet has been shown to perform better than other floor coverings in terms of its influence on air quality.

A carpet certified by the US-based Carpet and Rug Institute's indoor air quality testing programme - which is in turn reviewed by the Environmental Protection Agency - emits minimal levels of Volatile Organic Compounds (VOCs). These are the chemical by-products of interior design and maintenance materials.

Hard surface flooring, on the other hand, causes significantly higher spikes in VOC emissions - especially if the surface is coated with floor wax.

VOLATILE ORGANIC COMPOUNDS (VOCs)
EMISSION FACTORS OF SELECTED INTERIOR
CONSTRUCTION MATERIALS

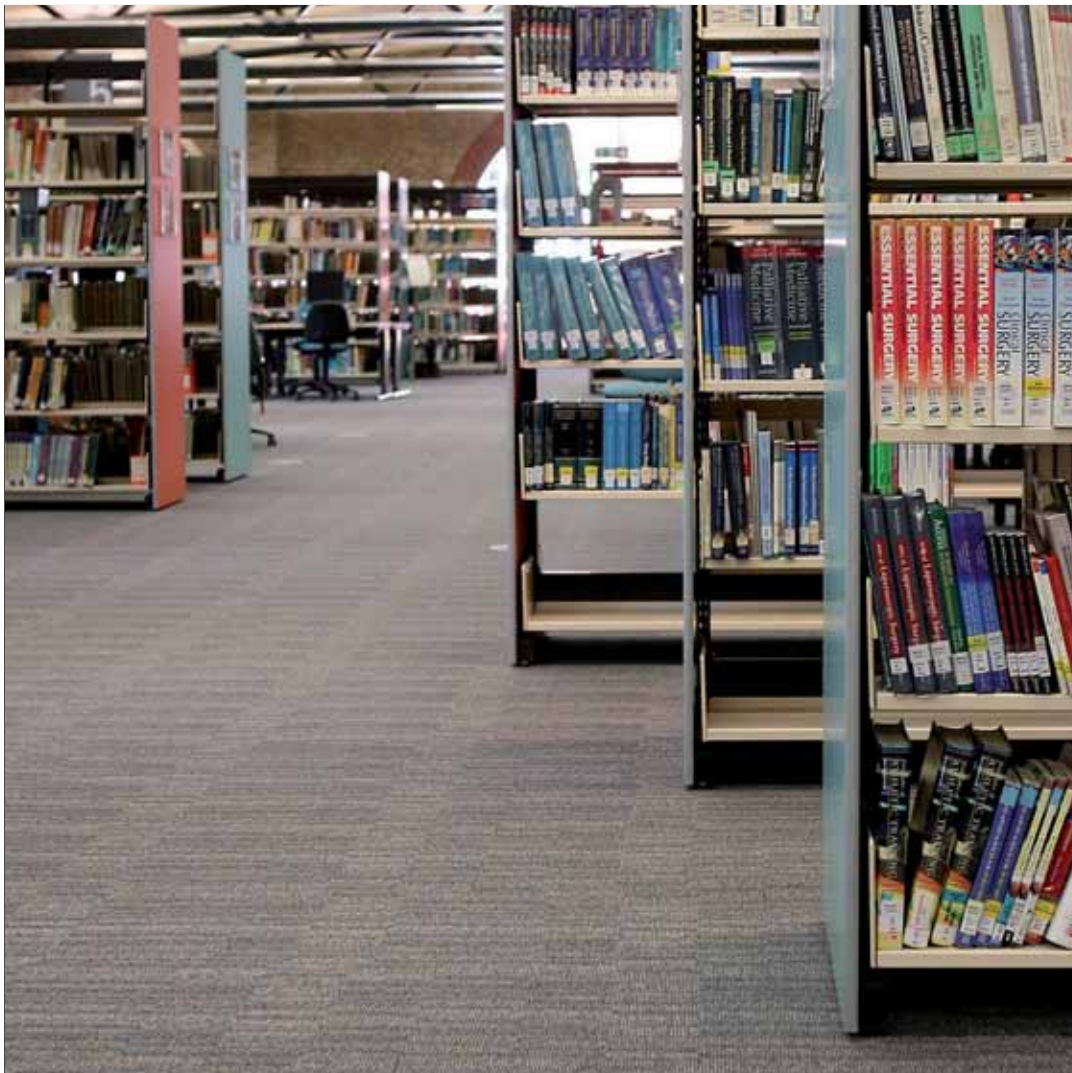


3

“CHILDREN WITH ASTHMA HAVE MORE DIFFICULTY
BREATHING IN CARPETED ENVIRONMENT”

TRUE FALSE

FALSE! Contrary on common belief, carpeted rooms reduce asthmatic reactions and related symptoms.



CARPET AND ALLERGENS

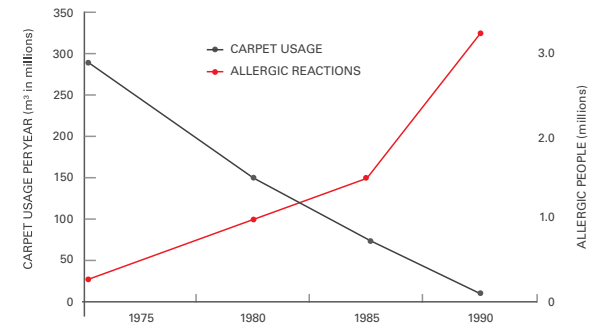
Recent research is reversing previous damaging assumptions about a possible link between carpet and allergens, and now shows that people who use carpets in their bedrooms are less prone to allergies.

Reports from Sweden during the 1970s claimed that carpet was a source of harmful contaminants that could trigger allergic reactions. Carpet's share of the Swedish floor covering market subsequently dropped to just 2 per cent by 1992.

However, the early 1990s also saw two professors from the Swedish Institute for Fibre and Polymer Research publish some highly significant new research that contradicted and challenged the 1970s view.

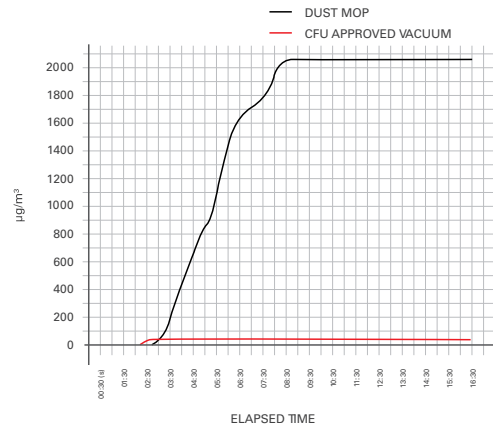
They found that occurrences of allergic reactions in the general population had increased dramatically since 1975 - as Swedish consumers and officials reduced their use of carpet! Their conclusion was that the removal and replacement of carpet did not improve conditions for allergic patients.

CARPET USAGE & ALLERGIC REACTIONS IN SWEDEN

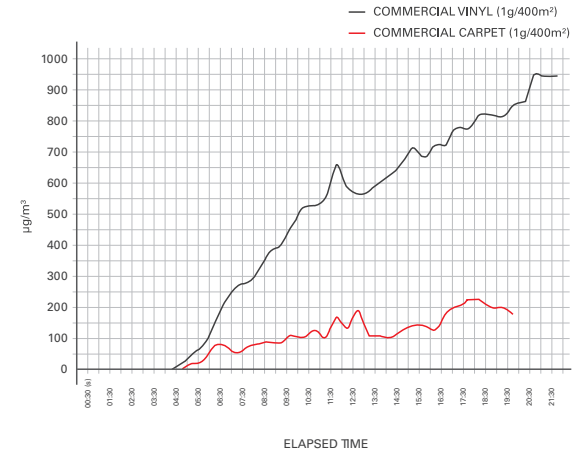


Carpet industry data supports this research. Professional Testing Laboratory Inc was in April 2002 commissioned to study the effects of foot traffic on air quality, depending on whether carpet or vinyl flooring was in use. Monitors were positioned five feet above the floor to measure particle counts continuously during, and following, 16 minutes of foot traffic.

ROOM AIR SAMPLING



FOOT TRAFFIC EMISSIONS ANALYSIS ROOM AIR SAMPLING



The graphs illustrate the enormous difference between emissions from the two surfaces, and powerfully supports the finding that "carpet holds particles down".

4

“CARPET PROVIDES SAFER ENVIRONMENT
FOR CHILDREN THAN HARD FLOOR”

TRUE FALSE

TRUE! DESSO carpet keeps our children safe - it is less slippery than hard surfaces and more forgiving in the event of a fall.



CARPET AND SCHOOL SAFETY

Slips, trips and tumbles can be painful, costly, and dangerous. Falls are second only to road traffic accidents in the number of people they kill.

Children of 10 or under form the second most likely age-group to be injured by falls. The possibility of a tumble can never be eliminated entirely, but in wet conditions a slip is twice as likely to occur on a hard surface as it is on carpet. Hard surfaces are also less forgiving, and are therefore more likely to result in severe injury.

Despite these obvious facts there has been an alarming trend away from carpet installation in schools, especially in hallways and on stairs, where more accidents occur. Slick, hard surface hallways become accidents waiting to happen amid the commotion and bustle of a typical school rush on a rainy morning. Carpet can play a vital role in keeping our children safe at school.

In addition, all DESSO carpets meet and exceed the European Fire retardant requirements.



5

“COMPARED TO HARD FLOOR COVERING,
CARPET IMPROVES ACOUSTICS
IN A LEARNING ENVIRONMENT”

TRUE FALSE

TRUE! DESSO carpet absorbs light, reduces glare and soaks up noise - making a vital environment contribution to educational performance.



LIGHTING AND NOISE CONTROL

Natural lighting, glare reduction and noise control have all been proven to make an important environmental contribution to good educational performance.

Carpet absorbs light, reduces glare and, essentially, soaks up unwanted noise. Teachers and students can only communicate properly if they can hear one another – and that means noise control is critical!

Normal speech can easily echo throughout the entire school building, but the installation of carpet makes sound control both simple and economical to achieve.

This was demonstrated at the Charles Young School, where student reading skills improved greatly after refurbishment. Carpet controlled sound, and also enabled open classes and flexible teaching as the floor space could now be fully used during lessons.

Separate research carried out in California has shown that “without carpet, effective sound control in open space classrooms is virtually impossible to achieve.”



“CARPET IS MORE EXPENSIVE TO CLEAN
THAN HARD FLOOR”

TRUE FALSE

FALSE! Life cycle costs of installing and maintaining carpet are more economical than those of hard surface flooring.



CARPET IS MORE ECONOMICAL

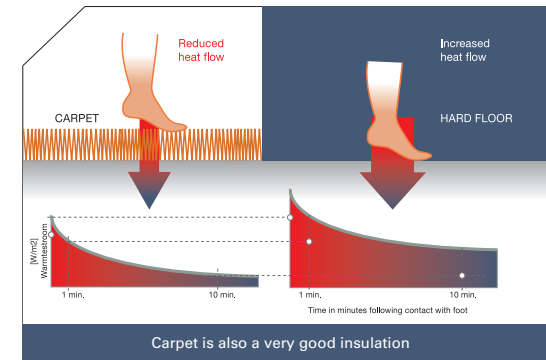
LIGHT TO MEDIUM TRAFFIC AREAS	CARPET	HARD FLOOR
Costs of cleaning, installation and maintenance for 22 years, including labor cleaning supplies, equipment, and equipment maintenance (per square foot)*	\$ 17.06	\$ 24.70

HEAVY TRAFFIC AREAS	CARPET	HARD FLOOR
Costs of cleaning, installation and maintenance for 22 years, including labor cleaning supplies, equipment, and equipment maintenance (per square foot)*	\$ 18.29	\$ 38.82

*1 replacement in 11 years.


ADDITIONAL COST SAVINGS:

During wintertime 2% of energy costs is saved with carpet compared to the average of all hard floorings.





“SUMMARY”



“Taken together, carpet boasts qualities and environmental benefits which can play a significant role in attracting students and teachers, and in creating a productive learning environment.”

SUMMARY

Carpet is an excellent choice for school settings. In fact there is a wealth of evidence to indicate that carpet is highly superior to other floor coverings in terms of its educational and environmental benefits.

Carpet helps schools to achieve a comfortable, caring environment that encourages teachers to stay and students to attend – and leads to better concentration, better performance, and higher test results.

Carpet does not increase the density of particles in the air. On the contrary, it tends to retain particles, keeping them out of the air and therefore improving indoor air quality. Well-maintained and clean carpet actually holds allergens at bay by preventing their release, even in areas of heavy use.

As if all that were not enough, the life cycle costs of installing and maintaining carpet are more economical than those of hard surface flooring.

NOTE: For further source details, please contact your sales representative.



Copyright Desso© 2008 - Concept and Design ElcaMedia.com

About DESSO

DESSO has been manufacturing and marketing carpet for more than 80 years, and during that time it has earned a fine reputation as a reliable partner and creative designer. Today, it has three factories in Europe and specialist customer service centres throughout Europe, as well as in America, Asia, South Africa, the Middle East and Australia. CARPECTURE® is a powerful example of the DESSO commitment to creative carpet design and its dedication to answer the needs of architects, interior designers, building owners, and end users. DESSO products can be found in offices, public buildings, banks, schools, universities, retail shops, and hospitals. Among its many highly valued customers are distinguished companies such as Fortis Bank, ABN AMRO, Deutsche Bank, Hilton Hotels, KLM and Virgin Atlantic.

Corporate responsibility/ Cradle to Cradle

DESSO has been taking to safeguard the environment for many years – long before it became popular to do so. With an ISO 14001 environmental quality accreditation, regular on-site checks by independent institutes ensure the best possible environmental production methods. In addition, every DESSO carpet and carpet tile carries a unique GuT test number that proves it passes GuT tests for contamination and emission. We also have several initiatives for re-using carpet to ease the burden on landfill, and our ongoing research programme for environmental awareness and recycling covers both product and packaging. DESSO continuously seeks to improve the environmental attributes of our products through product design development programmes whilst our manufacturing plants consider energy use and a continuous reduction in waste and pollution as well as process improvement.

For more information visit our website at www.desso.com

DESSO HEADQUARTERS

Taxandriaweg 15
5142 PA Waalwijk
The Netherlands
T. +31 (0) 416 664 100
F. +31 (0) 416 335 955
E. info@desso.com



The Floor is Yours