Summary

The glass fabric wallcoverings manufactured by Vitrulan for the University of Heidelberg's head clinic can withstand heavy-duty impact and are made to cover and reinforce cracks. Delivering extreme hygiene and durability benefits, they can be scrubbed, decontaminated and cleaned, and are moisture-proof. Plus, they meet all fire regulations and are easy to install. And they are more economical to repair than conventional wallcoverings. A stylish option, Vitrulan wallcoverings create a high-quality appearance, with endless options for design and color.

AQUA PLUS PIGMENT 633

About Vitrulan

Founded in 1921, Vitrulan manufactures glass deco fabric for wallcoverings, reinforcing fabric and other technical products made of textile glass. With two plants located in Germany, the company has more than 360 employees. Vitrulan wallcovering products create a smooth, durable and easy-to-clean surface that eliminates pores and pockets in which micro-organisms could accumulate. The company is dedicated to delivering high-quality products and outstanding service, on a global level. For more information, visit Vitrulan online at vitrulanusa.com or call 888-267-4067.

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WALLCOVERING FROM NATURE

CASE STUDY

Project Name:
University Hospital
Project Location:
Heidelberg, Germany
Design Firm:
Heinle, Wischer & Partners
Product Specified:
Aqua Plus Pigment 633
Total Amount:
1,250,000 square feet

Vitrulan Wallcovering Systems are Healthy Choice

for Heidelberg's University Hospital

Nowhere is your choice of wallcoverings more critical than in a hospital.

Impact resistance, surface reinforcement and an attractive, high quality appearance are just a few of the demanding requirements. Given the rise of superbugs like MRSA and C Diff in hospitals, it's more important than ever to be able to scrub and decontaminate any wallcovering, without causing surface damage.

By far the strongest proven solution to these ever-increasing demands on wallcoverings lies in the use of Vitrulan wallcovering systems, made of 100 percent finely spun glass yarn. While new to American hospitals, this product has been meeting the stringent demands of hospitals in Europe for the past two decades. One example of how Vitrulan wallcovering systems are making a difference in hospital hygiene and maintenance is the Kopfklinik, or head clinic, at the University Hospital in Heidelberg, Germany.

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The University of Heidelberg is not only one of the oldest universities in the world, but also home to one of the first hospitals in the world to be fitted with a glass fabric wallcovering. The university's head clinic set a trend that was followed by more than 95 percent of German hospitals when it opted for woven glass fabrics above more traditional wallcoverings back in 1987. Thanks to an extremely long lifecycle, the Vitrulan wallcoverings still comply with maximum performance and hygiene requirements after years of use.

Q&A with Experts at Heidelberg's University Hospital

Interview 1: Professor Hans G. Sonntag, Dean of Faculty of Medicine, University of Heidelberg

Q. Glass fabric wallcoverings were a new development in the field of interior design in healthcare facilities 20 years ago. Why did you prefer this type of wallcovering to the tiles that were typically used at that time?
A. When combined with the right paint systems, glass fabric wallcoverings result in absolutely closed surfaces without joints. They do not provide any kind of breeding ground for micro-organisms, and the risk of infection is minimized conclusively.

Q. What tests did your Institute carry out ahead of the installation?
A. We examined the growth behavior of micro-organisms on composite structures made of glass fabric. To do this, we contaminated 5x5cm test samples with a billion different bacteria and fungi that often occur in the hospital environment. The germs were sprayed onto the test samples. The samples were then stored at room temperature and 30 percent or 60 percent relative humidity. The results were remarkable: all the microorganisms had died within 48 hours.

Q. This smoothed the way for the use of glass fabric wallcoverings?
A. Almost. At first, many of my colleagues did not feel comfortable replacing the traditional tiles in the operating rooms. For this reason, we initially fitted a sample operating room with glass fabric wallcoverings finished with the appropriate coatings. It was only after further tests had been carried out and expert opinions heard that everyone finally agreed.

Q. Partly because your theoretical investigations have been confirmed by long years of practical experience?
A. The material is unchanged even after 20 years of extreme stress in our clinic. We are currently repainting some wallcoverings for the first time in extremely heavy-duty areas. We've found that the original appearance is restored completely with one single new coat of paint – without any changes to the functionality. No other wallcovering can do that.

Q. How important is appearance when selecting a wallcovering for highly sensitive areas?
A. Extremely important. The color and design in particular have a great psychological effect on patients. Depending on the color of the coating and fabric texture, glass fabric wallcoverings can be used to create a feeling of well-being, which helps patients relax and recover more quickly.

Interview 2: Rolf Stroux, Chief Building Director, University of Heidelberg

Q. Why did you become interested in glass fabric wallcoverings?
A. Test results proved that glass fabric wallcoverings could be used in all areas of the clinic. We tested a range of other wallcoverings, but found that the glass fabric provided the genuine flexibility we had been looking for. In particular, the excellent cleaning and decontamination ability is a decisive characteristic. In sensitive areas such as operating rooms, radiology or intensive care wards, there is no alternative to these wallcoverings. In addition, these wallcoverings stand up very well to daily wear and tear. Thanks to the reinforcement effect of the fabric, the edges of chairs, tables, stretchers or hospital beds cause significantly less damage than is the case with other wallcoverings. This maintains the high-quality appearance in the long-term, too, which reduces maintenance costs.

Q. In other words, the slightly higher initial costs quickly pay for themselves on account of lower maintenance costs?
A. Yes. We're extremely satisfied. We have only just started refurbishing some areas now, after 20 years. And the only refurbishment work necessary is a new coat of paint. The use of glass fabric wallcoverings is no more expensive than the use of alternative materials.

Interview 3: Gerald Bönisch, Heinle, Wischer & Partners, Stuttgart, Germany Heinle, Wischer & Partners is the architect firm responsible for supervising surface finishes at University of Heidelberg.

Q. Can you quantify the wall-reinforcing characteristics of glass fabric?
A. Tests prove that no other wallcovering compares with glass fabrics in terms of wall reinforcement. A strip of high-quality glass fabric one-inch wide has a tensile strength of 80 pounds. Vinyl wallcovering can bear just 35 pounds, and the tensile strength of standard chipboard wallpaper is only 11 pounds.

Q. This results in the great impact resistance of these wallcoverings?
A. The edges of hospital beds, stretchers and heavy-duty equipment leave traces in everyday clinic operation – sometimes with drastic results. A damaged operating room wall is no longer sterile, and the operating room can no longer be used. A large amount of day-to-day hospital damage can be avoided using glass fabric wallcoverings.

Q. Which final coatings were used?
A. In rooms where normal conditions prevail – i.e. consultancy rooms, administration and teaching rooms – coarse glass fabric wallcoverings with a pigmented acrylic coating were used. In many areas, glass fabric wallcoverings were also laid on colored backgrounds and sealed with a transparent polyurethane finish, giving many rooms a unique appearance. In intensive care and in the operating rooms we combined extremely fine glass fabric wallcoverings with two-component polyurethane coats. In radiology we applied three coats.

"The color and design in particular have a great psychological effect on patients. Depending on the color of the coating and fabric texture, glass fabric wallcoverings can be used to create a feeling of well-being, which helps patients relax and recover more quickly." - Professor Hans G. Sonntag