

The image shows the interior of the Abbey Library of St. Gall, a grand historical library with multiple levels of ornate wooden bookshelves. The ceiling is highly decorated with intricate carvings and frescoes. In the foreground, a wooden display case with a glass top is filled with historical documents and books. The floor is made of light-colored wood, and the overall atmosphere is one of historical grandeur and intellectual pursuit.

SCHOTT
glass made of ideas

The Abbey Library of St. Gall

Project report

Top viewing of the world's heritage

New showcase glazing enhances viewing of the renowned manuscripts in the Abbey Library of St. Gall.

The Abbey Library of St. Gall in Switzerland is a treasure trove of European tradition and the heart of the UNESCO World Heritage Abbey District of St. Gallen. St. Gall ranks as one of the world's most important libraries. In the richly ornamented Baroque Hall, showcases alternately exhibit collections from the unique assortment of over 2,100 manuscripts originating from the 4th century AD.

Reducing light levels

These precious exhibits literally need to be shown in the right light. On the one hand, visitors want to view the ancient manuscripts in a way that is appealing and as true to the originals as possible. On the other, the manuscripts cannot be permanently exposed to unfavourable light conditions otherwise the colours

and inks will pale. Protection against light damage is a key issue for most museums. Curators usually recommend a 50-lux limit for the long-term lighting of paper and textiles. "We therefore wanted to reduce light exposure and darken the room a little," said the Abbey Librarian Dr. Cornel Dora outlining the initial requirements (refer also to the interview).

The question was how to compensate for the loss of light while still being able to optimally present the manuscripts for viewing? The Abbey Library saw the showcases as being capable of achieving optimal outcomes. Their special design with roof-like inclined windows provided easy viewing of the exhibits but standard glazing reflected the light coming in through the large hall windows opposite. The Library therefore

contacted SCHOTT with the idea of improving viewing by using anti-reflective glass display cases. The specialty glass expert recommended a product from its large range of glass for museum, collections and gallery use: the picture glazing MIROGARD® Protect DARO.

Protecting against glare and UV light

Optical anti-reflective glass from the MIROGARD® family reduces the reflection of incident light to less than 1%. The glass is also entirely colour-neutral and permits the colours of the exhibits to appear true to the original. The product variant chosen in this particular case, MIROGARD® Protect, also provides optimal protection for the exhibits. The laminated safety glass consists of two panes of special, 2-mm thick glass.



With the former glass panes, reflections greatly impair viewing of the exhibits in the showcases.



In the Baroque Hall of the Abbey Library of St. Gall, unique manuscripts are exhibited in showcases. Viewing is now much improved thanks to new anti-reflective glass from SCHOTT.



The MIROGARD® Protect DARO picture glazing used in the showcases not only reduces light reflections to under 1% but is also resistant to fingermarks.

Inserted between these is a 0.38-mm thick PVB film that filters out 99% of the ultraviolet (UV) from incoming light rays. High-energy light rays with wavelengths of between 300 and 380 nanometres are then incapable of damaging the sensitive materials and yellowing the paper. Further UV filters have also been attached to the windows of the library.

Unlike the former single-pane safety glass used in the showcases, laminated safety glass also prevents, in the event of a breakage, splinters from falling onto and damaging the manuscripts. Any broken glass remains fixed to the integrated plastic film to also prevent unauthorized access to the valuable exhibits thereby reducing the risk of theft and vandalism.

No chance for fingermarks

Showcase presentations also benefit from an innovation that gives the picture glazing its name: MIROGARD® Protect DARO has a Durable Anti-Reflective coating with Oleophobic (DARO) properties. The glass is therefore resistant to fingermarks, dirt and water and is easy to clean with a soft, damp cloth. "We recommended the coating because visitors are able to stand directly at the showcases and come into contact with the glass. This can create smudges that impair viewing of the exhibits," explained Ulrich Huber, Sales Manager at SCHOTT. The amount of cleaning effort this might require is evident from the visitor figures: more than 110,000 people came to the library in 2015.

SCHOTT also fulfilled a special request from the customer: to speed up the glass replacement for the first test showcase, the old glass was removed in St. Gall and replicated by the firm Keller Glas in Winterthur using MIROGARD® Protect DARO. The showcase could therefore be used again within just two days."

Dr. Jürgen Steiner

"You can hardly see the glass at all"

Interview with Dr. Cornel Dora, Librarian at St. Gall

Mr. Dora, as Head of the Abbey Library, how do you rate the new showcase glass compared with beforehand?

Dora: The difference is striking. You have a clearly better view of the exhibits than before. Because there are virtually no reflections, you can hardly see the glass at all. Fingermarks are also less visible and easy to remove, saving us a lot of daily cleaning effort.

Why did you choose SCHOTT as a partner?

Dora: We were familiar with SCHOTT as renowned glass experts and they have an office in St. Gallen who were able to get us into contact with the relevant specialist. We received good advice and, most importantly, quick service that met our requirements.

The interviewer was Dr. Jürgen Steiner.



Dr. Cornel Dora, Librarian at St. Gall

Advanced Optics
SCHOTT North America, Inc.
555 Taxter Road
Elmsford, NY 10523
USA
Phone +1 (914) 831-2240
Fax +1 (914) 831-2346
info.architecture@us.schott.com
www.us.schott.com/architecture

