

*Artcare*<sup>™</sup>  
Protecting what we love

# Preserve for the future



NielsenBainbridge



# Only Artcare mount boards offer lasting protection

Poor quality mount and frame materials are responsible for more damage to pictures than previously thought. Pictures such as photos, drawings and water colours are irreparably damaged by direct contact with unsuitable frame materials. Unprofessional restoration, incorrect techniques and materials when handling, storing and displaying pictures lead to permanent damage.

## Danger in the frame!

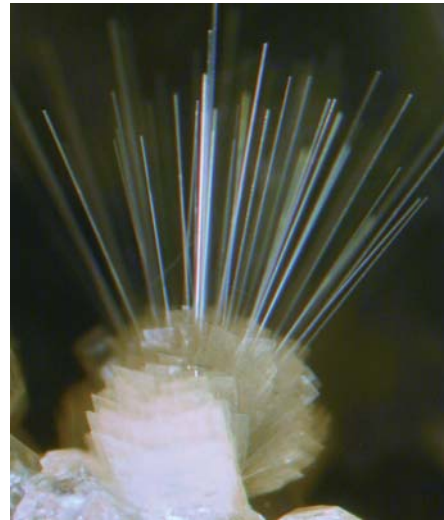
There is no vacuum in a picture frame, but there is a micro-climate. Unsuitable materials and atmospheric pollution from the outside can damage the picture. Traditional mount boards are unable to neutralise acid gases and contaminants, although they contain a small proportion of alkaline buffers. Calcium carbonate guarantees an acid free mount board, but does not protect the picture. Nielsen uses synthetic zeolites in its Artcare mount boards. With Artcare you have a mount boards which actually offers lasting visible protection for framed art.

## Zeolites – learning from nature!

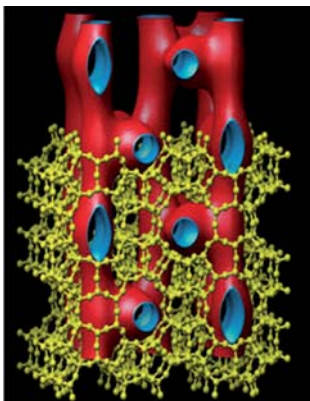
What is a zeolite? Zeolite is a mineral occurring in nature and was discovered 250 years ago. Zeolites have a microporous crystal structure with a very large surface. This gives them a virtually unlimited capacity for catching contaminants. They can be synthesized for many tasks and the Zeolite used in Artcare has been developed specially to bind the contaminants in the microclimate of the framed picture. Zeolites are today used extensively for biological water purification, in washing powders and for air filter systems.

## MicroChamber Technology – what's that?

In science, the use of zeolites is called MicroChamber Technology. The use of this technology in paper manufacture is a milestone of technical progress for picture framing and archiving. For the first time, mount boards are not only acid free and ageing resistant themselves, but – and this is much more important – they bind and neutralise the most common pollutants in our environment.



*A natural zeolite – one of nature's cleansers*



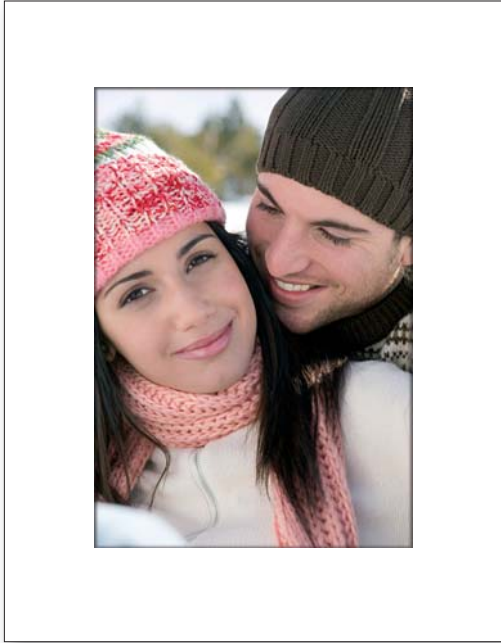
*Model illustration of a zeolite  
Source: C. Baerlocher/Laboratorium für Kristallografie ETHZ*

Scientific details and test results on:

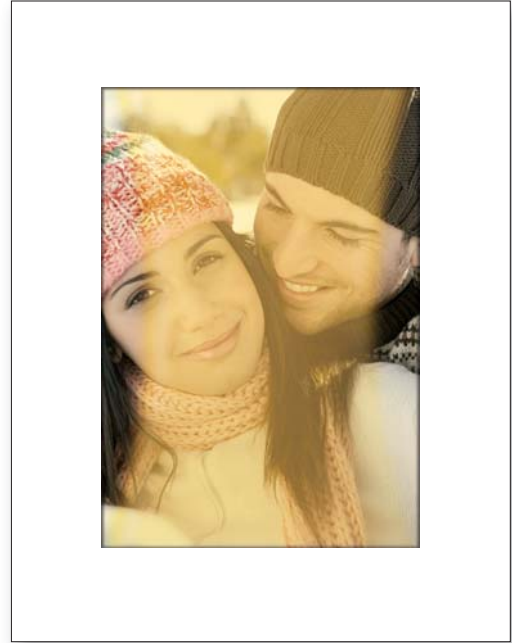
[www.nielsen-bainbridge.com/conservator/introduction.html](http://www.nielsen-bainbridge.com/conservator/introduction.html)

## With Artcare mount boards: protection from damage to your pictures caused by contaminants

(Oxidation test: ANSI IT 9.15 1992)



*Artcare mount boards are the only ageing resistant mount boards which have been proven to protect photos and artworks from contaminants in the environmental air.*



*Air pollution and acids from traditional boards and wood cause bleaching out and ageing*

## Artcare represents highest quality: Artcare fulfils strict conservation standards

Certified raw materials and controlled manufacturing processes as well as a fully equipped in-house laboratory guarantee the particularly high quality standard.

**With Artcare: No bleaching  
out of mount boards**

(Test: ASTM D3424)



*Pigmented Artcare boards fulfil the strictest bleaching out standards.*



*Non-ageing resistant boards bleach out over time*

**With Artcare: No yellowing  
of mount boards**

(Test: ASTM D3424)



*Artcare boards contain no optical brighteners*



*boards with optical brighteners yellow.*

**With Artcare: No bleeding  
out of mount boards**

(Test: FACTS ExPMMB-2000)



*Pigmented Artcare boards after 48 hours in the water bath.*



*Normal boards bleed out if they are exposed to moisture.*

# Quality certificate

## Ageing resistant Artcare products

All Alphamat and Alparag Artcare mount boards fulfil and exceed the criteria of DIN 6738, ISO 9706, ANSI/NISO Z39.48-1992 (ageing resistance of paper). All Artcare products have passed the Photographic Activity Test (P.A.T.) ISA 14523.

### Core & surface paper

- Alphamat: Alphacellulose fibres which fulfil the strictest standards for durability and ageing resistance.
- Alparag: 100 % primary cotton fibres
- Test results in accordance with the TAPPI method T-236 om-85 indicate the boards are free from groundwood and lignin.

### Ph value

- Alkaline ph value of 8.5 +/- 0.5 measured in accordance with the TAPPI method T-509 om-88 in cold extract from the vat.

### Buffer

- Alkaline reserve of 3 - 5 % (calcium carbonate) was measured in accordance with ANSI IT9.2-1991 Sec 5.2.

### Molecule traps (= zeolites)

- Contains synthetic molecule traps (= zeolites = Micro-Chamber Technology), which particularly assure adsorption of contaminants from the environmental air and from artworks and photographs, proven in the oxidation test ANSI IT9.15-1992.

### Colour fade resistance

- Colour fade resistance was proven in the Xenon fadometer in accordance with the FACTS standard. Colour change less than 1.0 LAB points.

### Colour running resistance

- No visible running of colours after 48 hours in the water bath in accordance with the method FACTS EXPMMB-200 Sec 10.03

### Ageing resistance

- Board specimens were tested for 10 days in the humidity chamber at 100° F (37.8° C) and 90 % relative air humidity. All board components remained unchanged in their appearance and stability.

### Surface sizing & adhesives

- Alkaline surface sizing (Cobb Size Test TAPPI T-441 om-90). Only water based alkaline adhesives without solvents are used for laminating the components.



 NielsenBainbridge