



Pompeii – an archaeological milestone arises from the ashes



Project: Preservation of the archeological excavations of Pompeii

Client: Poliplast S. r. l.

Location: Pompeii, Italien

Market segment: Construction

Product: Makrolon® multi UV 3X/16-25 bronze 1850, Makrolon® AR clear 8099 in 8 mm

Concept: Alberto Custodi, University of Bologna, Italy

Building contractor: Poliplast S. r. l.

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A historical arena

The best possible preservation of decayed antique buildings and archaeological sites is always a complex challenge for scientists. Firstly, the archaeological remains must be protected against climatic influences; secondly, they must be maintained in their original state. Pompeii was an ancient town located in Campania in the Gulf of Naples that was buried by the ash that rained down from Vesuvius in 79 A.D. It was not rediscovered until the 18th century and the question was how to preserve this valuable cultural legacy in the long term. It was important to protect the old building fabric as well as the frescoes and wall paintings, against climatic influences and destructive UV rays.

The choice fell on Makrolon® AR abrasion-resistant polycarbonate solid sheets and multi wall 3X/16-25 sheets in bronze, not least due to their low weight and hence the ease of processing and handling.

High UV protection for paints in the frescoes

Makrolon® polycarbonate solid and multi wall sheets filter out UV radiation, thus protecting the frescoes against rapid deterioration – in particular against fading of the colours. At the same time, these sheets provide high light transmission. In addition, the Makrolon® multi wall sheets come with a 10 year guarantee for resistance to weather and hail.

Abrasion-resistant covers preserve the original state of the wall paintings

Another advantage of the sheet material is its extremely high shatter resistance compared to glass. And the scratch resistance of the Makrolon® AR sheets should also be emphasised. In order to protect wall paintings and lettering against damage, the abrasion resistant solid sheets were installed as moveable covers. They are suspended at the top by hinges so they can easily be lifted for cleaning.

Reconstruction of parts of roofs and walls

In the 2000 year old city, shrouded in legend, Makrolon® multi UV sheets were used as roofing and wall elements. For example, a roof construction made of the polycarbonate multi wall sheets covers the corner of a main atrium that originally was completely covered over except for an opening above a basin for collecting rainwater. The triangular roof sections are mounted at an angle and meet at the joins so that the rainwater cleans the sheets and runs down into the basin. The light aluminium substructure can be installed flexibly and was covered with Makrolon® multi UV 3X/16-25 in bronze. In contrast, wall openings were covered with transparent multi wall sheets to prevent rain and wind penetrating inside.



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Bayer MaterialScience

Bayer MaterialScience GmbH
Otto-Hesse-Straße 19/T9
64293 Darmstadt, Germany
Tel +49 6151 1303-0
Fax +49 6151 1303-500

www.bayersheeteurope.com