



COLORED CONCRETE WORKS®

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Case Study

Project:

Muzeum Lotnictwa Polskiego,
Krakow, Poland

LANXESS
Energizing Chemistry



A homage to the dream of flying.

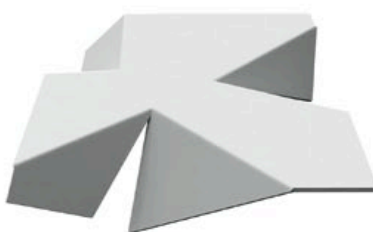
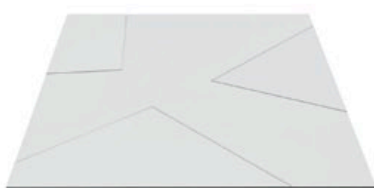
A cultural building on a historic site.

On the former Rakowice-Czyzyny airfield near Krakow, a place steeped in history, a team of architects – Pysall Ruge – has built one of the world's largest aviation museums. The architects aligned their plans to the fascination of flying, the structure of the historic airfield and the impressive technology. The old hangars of the Rakowice-Czyzyny airport provided the basis for the layout of the square base (60 m x 60 m) and the height of the new building. The building looks as if it has been cut and folded like a paper airplane. It has three wings, is cast in concrete but is still light and airy. To achieve the desired colour, and to ensure harmonious integration into the Aviation Park surrounding

the museum, the architects opted for Bayferrox® pigments (shade 330/1). In addition to the airplane exhibits, the new building also accommodates a 3D cinema, a restaurant with a bar, a library, a lecture room, offices and meeting rooms. Through intelligent ventilation and the intensive use of daylight, a particularly resource-saving energy concept was implemented. Compared with conventional air conditioning and lighting concepts in comparable museums, the building's energy costs are down more than 40 percent.



A square folded into a light, three-winged form.



Attractive stage for special exhibits.





Monumental, but still light and airy: The entrance portal.

A concept that respects the environment.

The exhibition connects optically to the outdoor areas and offers a view of the airfield with the planes lined up outside. The planes in the north wing do not give the appearance of being shut in - they look as if they are taking shelter and are ready to take off at any time.

The fascination of aviation is perpetuated outdoors in the Aviation Park. Historic planes are stationed along the former taxiways to the landing strip. The authenticity could easily make one forget that these are museum items.

The staircase in the west wing leads on to the offices and meeting rooms and to the restaurant.



“Our building combines the functionality and identity of an aviation museum on an expressive, metaphoric scale.”

Dipl.-Ing. Justus Pysall

Pysall.Ruge Architekten

Study and diploma at the Technical University of Brunswick, Germany. From 1989 to 1991 at Foster Associates in London and lecturer at the London Architectural Association. 1992, Atelier Jean Nouvel, Paris. 1993, founding of the architect's office Pysall Ruge Architekten in Berlin with Peter Ruge. 2006, opening of an office in Hangzhou, China. Some of the company's projects: Rose of Mianyang, Sustainable City, China; BBI Business Park, Berlin. Pysall Ruge have received the Kajima and Asakura awards in Japan, the BDA prize, Hamburg, the office application award, best architects Germany and the Gold certification of the DGNB quality seal for sustainable building. The company has staged exhibitions, for example, in the German Architecture Museum in Frankfurt, at the Architecture Biennale in São Paulo and at the international Architecture Biennale in Venice.

The aesthetics of subdued colours.

Neutrality as a colour concept.

Before starting to design the Aviation Museum in Krakow, the team of architects at Pysall Ruge analyzed the architecture of several other museums. "Many of the concepts seemed to us to be too restless," said Justus Pysall. With their decision to opt for anthracite coloured concrete with Bayferrox® 330/1, the architects came up with an attractive alternative. The exhibits stand out perfectly from the dark background, whether the planes are blue, silver or red. A total of 3,500 cubic meters of concrete were coloured with 39 metric tons of Bayferrox® 330/1. The pigments were delivered in sacks and processed in batches at the concrete factory. Cemex Polska supplied the concrete.

Gliders are also among the exhibits – alongside engines and aviation artifacts





Blériot XI, Replica, Original 1909.



Project data

**Bayferrox® 330/1 makes for a discreet,
unobtrusive appearance.**



Location

Krakow, Poland

Architecture

Pysall Ruge Architekten with Bartłomiej Kisielewski

Principal

Muzeum Lotnictwa Polskiego w Krakowie

Project participants

Regional administration of Małopolska

Construction period

2008–2010

Area

3,378 m²

Amount of concrete

3,500 m³

Pigment volume

39 metric tons

Form supplied

Powder pigment in paper sacks

Pigments



Bayferrox® 330/1

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