

## SIKA AT WORK KRAKÓW ARENA: THE BIGGEST SPORTS AND ENTERTAINMENT VENUE IN POLAND

SIKA TECHNOLOGIES: FLOORING SYSTEMS, ROOFING SOLUTIONS, SEALING AND BONDING, CONSTRUCTION STRENGTHENING

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## SPECTACULAR PROJECT, HUGE CHALLENGE AND FRUITFUL COOPERATION

KRAKÓW ARENA designed by the architectural firm Perbo-Projekt is currently the biggest sports and entertainment venue in Poland which was opened in May 2014 in the Czyżyny district. This state-of-the-art, multi-purpose facility meets all the most restrictive requirements and international standards concerning organizational and technical aspects. Therefore it can host mass sporting and cultural events, exhibitions, fairs and many more. It comes as no surprise that to build such a world class venue only top-notch systems and products had to be applied.

## SPORTS AND ENTERTAINMENT **VENUE IN POLAND**





#### PROJECT REQUIREMENTS

The construction of such a significant venue demanded on-site technical support on various levels - e.g. suitable systems selection and work quality control. In addition to this, most significantly, the building chemistry provider had to be well experienced and have a history of proven performance as the project requirements of the venue in Cracow were very restrictive.

The roof construction required the use of high quality membranes in order to provide a maximally tight roof insulation. Moreover the applied system that was mechanically fastened at height 28 m had to take into account difficult external conditions, such as strong wind uplift forces.

In the areas with car parks and walkways it was necessary to use resistant flooring systems that could manage the footfall of thousands of people visiting the venue. Additional important requirement was a colour selection of the flooring system.

#### SIKA SOLUTIONS

During the whole project Sika Poland provided all necessary technical support - our engineers from TM Flooring and TM Roofing offered their on-site assistance. As a reliable partner that has a strong track record in similar venues all around the world Sika was able to provide only top quality and technically proven systems and products.

#### **ROOFING SOLUTIONS**

Sika technologies were used to ensure a tight insulation for a roof of 13 000 m<sup>2</sup>. To fulfill all the requirements, including increased resistance to strong wind uplift forces, FPO/TPO Sarnafil® TS 77-15 membranes were used. They were fasted mechanically to the roof deck in **Sarnafast** system. A proven track record shows that even in difficult conditions Sika's membranes will stand the test of time, ensuring safety and comfort to all spectators.

# SIKA SYSTEMS ON THE BIGGEST



PARAMETERS OF THE VENUE'S MAIN HALL:

- diameter: 146 166 m
- surface: 61 434 m<sup>2</sup>
- height: 27 m
- sports arena's surface: 2390 m<sup>2</sup>
- seats for the audience in the main hall:
- from 11554 up to about 18000 depending on the event

### **FLOORING SOLUTIONS**

For car parks system OS8 was used - cost-effective, 2-part, epoxy resin Sikafloor®-161 was applied as well as 2-part, self-levelling, epoxy coating Sikafloor®-264 to achieve colourful surface. The same products were used for floors in walkways and stands, which enabled to achieve a resistant and aesthetically pleasing surface. Altogether Sika provided systems for 30 000 m<sup>2</sup> of floors.

#### ADDITIONAL SOLUTIONS

For the Kraków Arena's construction Sika systems were also used for:

- concrete repair Sika® Repair system,
- construction joints sealing : high performance joint and crack waterproofing Sikadur® Combiflex SG **System** made of a FPO tape and epoxy adhesive,
- construction strengthening carbon fiber reinforced plates Sika CarboDur<sup>®</sup>.



#### **PROJECT PARTICIPANTS**

Owner: Miasto Kraków Inwestor: Miasto Kraków Architects: Perbo-Projekt Kraków Construction: Modern Construction Systems General Contractor: Mostostal Warszawa, Asseco Polska Sub-contractors: roof - NTB Skawina / floors - PULAKO Sika engineers: Maciej Urbanek / Marek Kawalec

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