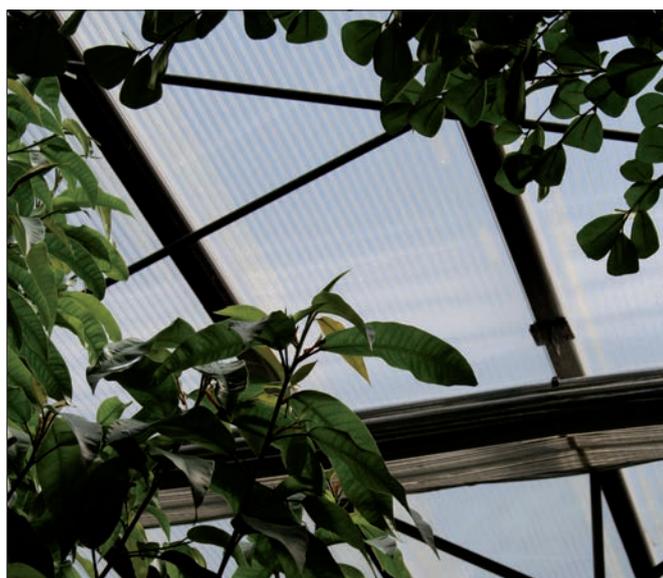




Makrolon® multi UV: Just like new after 12 years

Modernization in Mannheim's Luisenpark has long-lasting impact



Project: Tropicarium modernization in Mannheim's Luisenpark
Customer: ThyssenKrupp Plastics GmbH, Mannheim
Implementation: Thomas Rapp Stahl- und Metallbau
Market segment: Construction
Product: Makrolon® multi UV 3X/25-25
Makrolon® multi UV 3/16-16
clear 4099 no drop

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Since its inauguration in 1958, the tropicarium at Luisenpark in Mannheim, Germany, with its lush vegetation and animals from Asia and the Americas, has been a popular attraction. Twelve years ago a gradual renovation was started by replacing a large portion of the glass roofing and facades with the high-quality Makrolon® sheets from Covestro.

For the tropicarium, which houses ferns, cacti, tropical plants, and snakes, Covestro provided polycarbonate sheets such as the 3-wall Makrolon® multi UV 3X/25-25 and 3/16-16 no drop. The installation was done in close collaboration with Thyssen Krupp Plastics GmbH, Mannheim, and Rapp Stahl- und Metallbau, a company specializing in metal and steel construction. At the time the modernization received a lot of attention due to the unusual length of the Makrolon® multi-wall sheet of 11.8 meters. Until today the sheets have demonstrated their indestructibility and quality despite being exposed to extreme conditions.

A sensational project back then and today

„The installation was also quite unusual,“ says Gerhard Schrupf, now Departmental Head of Sales at Thyssen Krupp Plastics. He enjoys reminiscing about the beginnings of the renovation, in which he did pioneering work. When the 11.8-meter sheets were installed, Schrupf joined the crew on the roof of the main building to assist in the process. In the renovation, only the glass was replaced, while most of the sub-structure remained in place and could be used for the installation of the lighter Makrolon® sheets, which saved costs. The only addition was a special thermal rung for the multi-wall sheet. When the sheets were originally installed, the translucent multi-wall Makrolon® stood out for its transparency, letting in quantities of light, as well as for its low weight, hassle-free handling, and easy processing. Based on twelve years of experience, several benefits can be added to that list today.

After twelve years, the weather-resistant sheets do not show any signs of yellowing and offer optimum translucency. Even the chemically aggressive bird droppings from the many storks nesting at Luisenpark do not affect the long life span of the material. The inside of the sheets has a no-drop coating, which prevents condensation drips and allows the sunlight to pass through without any obstructing reflection. Makrolon® multi UV also features proven climate properties. This directly benefits the reptiles in the snake house whose cold-blooded metabolism does not enable them to maintain a constant body temperature, making a warm environment crucial for their survival. Makrolon® multi UV ensures a consistent temperature inside the tropicarium. The polycarbonate sheets prevent sudden drops in temperature, unlike the previous installation with the glass roofing and facade. Another advantage of the material is its heat-insulation properties, which not only prevent colds in snakes, a frequent problem prior to the installation of the polycarbonate sheets, but can also contribute to save energy costs.

A continuously expanded broad product portfolio

Since the renovation of the tropicarium in Mannheim, the portfolio of Makrolon® sheets for roofs and facades has been continuously expanded and has repeatedly set new standards in the construction industry. Under the trademark i-LINE Covestro GmbH offers a broad product portfolio with a wide selection of high-insulation sheets for eco-friendly first-time construction and modernization. The polycarbonate solid (GP), multi-wall (multi) and corrugated (CS) sheets are available in many colors, as well as transparent, translucent and opaque. The solid sheets are offered in many different sizes, property combinations, and structures. The outstanding temperature resistance of the material from minus 100 °C to 120 °C makes it possible to use it in all weather conditions ranging from tropical to arctic climates. Thanks to their low weight, the sheets can be installed on a large scale on relatively filigree sub-structures. The material is also easy to process. The sheets can be sawed, drilled, or milled and feature excellent cold-bending properties.

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