Hyparschale Magdeburg



SHORT DESCRIPTION

Reinforcement of the supporting and shell structure of the Hyparschale built in 1969 in Magdeburg using carbon concrete.

THE PROJECT

The Hyparschale was designed and built in 1969 by Ulrich Müther. After years of use, the building, measuring approx. 45x45 metres, has been empty and decaying since the 1990s. Through extensive preliminary planning and the new building material carbon concrete, the shell and the building can be used in a new way. Before the renovation, the shell has an average thickness of 7 centrimetres. One layer of 1 centimetre thickness is applied to the top side and one layer to the bottom side.

Report from Baublatt

CHALLENGES

Novel building material which has been approved for use by an approval on a case-by-case basis. Due to the exposed location, continuous aftertreatment is important. On the roof surface, a tarry sealing had to be removed.

SUSTAINABILITY

Significant material savings can be achieved with carbon concrete. Approximately 130 tons of special plastic-modified concrete are required for the complete renovation. Conventional renovation with sprayed mortar would require about 800 tons of mortar instead. Furthermore, the carbon scrims which are embedded only weigh approx. 600 grams/m^2, thus saving weight and additional machine technology.

FURTHER INFORMATION

Image: © gmp Architekten

FACTS

Location	Heinrich-Heine-Weg , Magdeburg , Germany
Status	Under construction
Construction volume (value of our services)	1.7 M EUR
Start of construction	October 2020
Completion	June 2021
Building owner	Eigenbetrieb Kommunales Gebäudemanagement Magdeburg
General management	gmp Architekten von Gerkan, Marg und Partner
Project management	Moritz Buchholz (gmp)
Architect	gmp Architekten von Gerkan, Marg und Partner
Project designer	Landeshauptstadt Magdeburg
Construction management	Michael Beetz (Implenia)
Planning	gmp und CarboCon
Construction management	Michael Beetz (Implenia)

SERVICES

Restoration

Civil engineering

Concrete construction

https://implenia.com/en/references/detail/ref/hyparschale-magdeburg/

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