Case Study
Project:
Middelburg Town Hall,
Netherlands
A town hall forming a link between two worlds.
An architectural concept that links the city’s history with the modern age.

The new town hall in Middelburg, the capital of the Dutch province of Zeeland and home to nearly 48,000 people, was designed by the German-Dutch architectural firm RAU and built between 2002 and 2004. But a slew of extraordinary planning had to be overcome before the building could be opened because a canal, a railroad line with a station, a highway, and in the middle of all of this, a barely developed rail yard divided Middleburg and cut off the historic city center from the south. There really could be only one goal: to transform this zone into a vibrant area that connected the historical parts of the city.

The Amsterdam-based architectural firm RAU accomplished this with a well thought out concept using integrally colored exposed concrete as the most prominent building material. Using panel walls oriented in such a way as to serve as a visual intermediary between the city neighborhoods, and with towering, clearly structured elements on the wharf side that emphasize the linear character of the building, this building not only gives the city administration space for present and future uses, it also reconnects the two neighborhoods and adds vitality to the entire wharf.
Color as a fundamental part of the architectural concept.

Integrally colored concrete creates new space within a space.
The integrally colored concrete used in the construction of the town hall played a major role in the success of the concept of creating daylight architecture with vibrant spaces. Spaces in which people happily spend time and work enthusiastically. Spaces that lend themselves to multifunctional use.

Because the building’s location between the canal and the railroad line made it impossible to create exterior spaces, they were simply moved inside. The publicly accessible foyer on the first floor, for example, was positioned so that both sides of the city could be seen.

The vertical and horizontal slot-like openings in the facades permit a view of a small group of trees over the parking garage and reinforce this interplay of spaces within spaces. The result is a town hall of ultramodern colored concrete, that combined with sophisticated architecture has a unique look and feel.

LANXESS Bayferrox® 330 pigment is the basis for the anthracite-colored concrete.
Alternative uses as an integral element of sustainability, the towers are also designed with residences.

Integrally colored concrete combines design with sustainability.

The town hall is not only a piece of modern architecture and a lively meeting place for citizens and government official, it also demonstrates what is possible in energy-efficient design using innovative concepts and integrally colored concrete. All of the heat generated by people and machines was included in the energy calculations. The majority of the building’s energy demand is covered by a photovoltaic solar energy system on the roof with a total output of 100,000 kWh. A network of pipes in the concrete roof provides heating and cooling to all the spaces, and a water reservoir 70 m underground serves as buffer storage for hot and cold water, enabling the energy required for heating and cooling to be reduced to an absolute minimum.
The town hall evocative of a container ship is Middelburg’s new calling card.

“The key to sustainable building is to combine energy-saving technologies with an energy-generating building concept. Integrally colored concrete is ideal for this.”

The basis for the building’s high energy efficiency, however, is the thermally inert behavior of the massive concrete structure, which is particularly beneficial for regulating the temperature of the interior spaces. Concrete is a building material that buffers heat and cold, is extremely durable and long lasting, and easy to maintain. The pigments from LANXESS are light-fast, weather stable, and ecologically safe to use. And since they are combined in the matrix of the concrete, the building does not require painting.

RAU Architects Amsterdam consider buildings to be an interaction between nature and culture, and the use of integrally colored exposed concrete enabled Middelburg Town Hall to be built in keeping with this philosophy.
LANXESS Central Eastern Europe
LANXESS Central Eastern Europe s.r.o.
Stetinova 4
811 06 BRATISLAVA
SLOVAKIA
Tel.: +421 905 719 637
Fax: +421 2 32151624

Australia
LANXESS Pty. Ltd.
Business Unit Inorganic Pigments
Unit 1, 31 Hill Road
HOMEBUUSH BAY NSW 2127
AUSTRALIA
Tel.: +61 28748 3927
Fax: +61 29748 6103

South Korea
LANXESS Korea Ltd.
Business Unit Inorganic Pigments
395-62, Shindaebang-Dong
Dongjak-gu
SEOUL, 156-712
REPUBLIC OF KOREA
Tel.: +82 2 829 6681
Fax: +82 2 847 3062

Spain
Europigments, S.L.
Business Unit Inorganic Pigments
Arquitectura, 27
Poligono Industrial Els Garrofer
08340 VLASSAR DE MAR
SPAIN
Tel.: +34 93 75407 70
Fax: +34 93 75407 84

Central Eastern Europe
LANXESS Deutschland GmbH
Inorganic Pigments
Rheinuferstraße 7–9
47812 Krefeld
Germany
Fax: +49 2151 88 4133
E-mail: coloredconcreteworks
@lanxess.com
www.lanxess.com
www.bayferrox.de
www.colored-concrete-works.com

For more information contact our LANXESS country representative.

United Kingdom
LANXESS Ltd.
Colour Works
Lichfield Road
BRANSTON
Burton-on-Trent
Staffordshire, DE14 3WH
UNITED KINGDOM
Tel.: +44 1283 714222
Fax: +44 1283 714201

South Korea
LANXESS Korea Ltd.
Business Unit Inorganic Pigments
Marunouchi Kitaquchi Building 23F
1-6-5, Marunouchi, Chiyoda-ku
Marunouchi Kitaguchi Building 23F
Japan
Tel.: +81 3 5293 8017
Fax: +81 3 5219 9776

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LANXESS Deutschland GmbH
Inorganic Pigments
Rheinuferstraße 7–9
47812 Krefeld
Germany
Fax: +49 2151 88 4133
E-mail: coloredconcreteworks
@lanxess.com
www.lanxess.com
www.bayferrox.de
www.colored-concrete-works.com

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Case Study
Project: Middelburg Town Hall, Netherlands
Project data
The speed of construction was important. Everything had to work according to the just-in-time principle because there was no way of storing building materials on the small property between the railroad line and the canal. That combined with the architectural concept left only one choice for the building material: integrally colored concrete. More than 6,000 m² of ecologically surface-treated facade elements were made from integrally colored concrete during a phase of fundamental construction lasting just a few months.