

Education/Culture

# MIMO, House Demonstration Unit HDU

Création Baumann furnishes experimental building for sustainable construction at Düsseldorf University of Applied Sciences.



## Starting Point

An interdisciplinary team from Düsseldorf University of Applied Sciences is demonstrating solutions for holistic resource-efficient buildings in an urban context under the guiding principle 'Minimal Impact – Maximum Output', or MIMO for short. As part of the Solar Decathlon Europe 21/22 competition, the team designed a renovation and extension concept for urban densification for a warehouse in Wuppertal built in 1905, which is now used as an event location by the nationally renowned Café Ada. The aim and leitmotif for the redesign of the existing building is the aspect of preservation – both safeguarding the structural history of the property and preserving the atmosphere.

As the world's leading manufacturer of acoustic fabrics, Création Baumann was asked to equip the HDU with both acoustically effective fabrics and solutions for sun protection. The innovative textiles meet the building's high demands for functionality and provide thermal insulation, visual and glare protection, acoustic privacy and room separation.

## Solution

On the two levels of the HDU are two reduced living modules, each with a bathroom and two differently usable living spaces, as well as different communal areas such as a kitchen, a large dining area, a lounge and storage space.

The main entrance leads across under the upper floor with living module through the communal kitchen area, which can be spatially and acoustically separated by double-woven, highly functional curtains by Création Baumann. Due to the spatial separation with acoustic fabrics as well as different heating circuits, the kitchen area can be used individually as a heat island with a higher temperature level during the winter months.

In the two-storey main room, which is spacious and full of daylight thanks to the numerous window surfaces, a space-creating staircase opens up the upper lounge and provides concealed storage space. Curtains by Création

## Object

MIMO, House Demonstration Unit HDU, Wuppertal, Germany

## Concept

MIMO, University Düsseldorf, Düsseldorf, Germany

## Photos

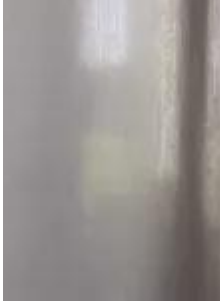
Team MIMO / Marvin Hillebrand, Germany

Baumann provide glare-free, blackout and privacy inside and serve as sun protection outside.



# Textiles Used

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## DELTACOUSTIC

**Article-Number:** 0101125

**Use:** Transparent/semi-transparent curtain fabric

**Number of colors:** 17

**Material:** 100% Flame retardant (Trevira CS)

**Fabric width:** 300 cm/118 inch/3.28 yard

**Weight:** 125 g/m<sup>2</sup>

**Sound absorption:**  $\alpha_w$  0.60

**Light fastness:** 6-7

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## SECRET

**Article-Number:** 0101170

**Use:** Dim-out fabric/blackout

**Number of colors:** 21

**Material:** 100% Polyester flame retardant

**Fabric width:** 300 cm/118 inch/3.28 yard

**Weight:** 358 g/m<sup>2</sup>

**Sound absorption:**  $\alpha_w$  0.85

**Light fastness:** 6-7

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## LORD III

**Article-Number:** 0100130

**Use:** Dense curtain fabric

**Number of colors:** 35

**Material:** 100% Flame retardant (Trevira CS)

**Fabric width:** 150 cm/59 inch/1.64 yard

**Weight:** 349 g/m<sup>2</sup>

**Sound absorption:**  $\alpha_w$  0.75

**Abrasion resistance:** 60'000 Martindale

**Pilling:** 4

**Light fastness:** 5-6