

HUECK AT BAU 2023: INNOVATIVE ALUMINIUM SYSTEMS FOR WINDOWS, DOORS, FAÇADES AND FIRE PROTECTION IN "INGENIOUS DIVERSITY"

At BAU 2023, from April 17th to 22nd in Munich, HUECK System GmbH & Co. KG will be presenting itself for the first time after the merger as part of Hydro Building Systems (HBS). In Hall B Stand B103, the stand of the Lüdenscheid-based aluminium system house offers interested parties and customers an open, modern communication platform for information and exchange. Market-oriented product highlights are presented here - from the harmonized HUECK Lambda WS/DS 075/090 modular system with the innovative Silent Air soundproof window and a double-leaf RC3-certified full panic door, to a system supplement for the HUECK Volato M+ sliding series, to the expansion of the versatile façade modular system HUECK Trigon FS with a new all-glass solution and a fire protection façade.

Ingenious Diversity. Continued.

The presentation reflects the concentration on HUECK's core competencies: windows and doors, facades, sliding doors as well as soundproofing and fire protection. "The great advantage of our modular system is not only the overarching concept of identical parts, but also the fact that they can be combined with one another," explains Thomas Leimkühler, Head of HUECK System Management. "In this way, we can largely meet the most diverse requirements of planners and architects with standard systems." On this basis, the company has just introduced the modular window and door system HUECK Lambda WS/DS 075/090. Under the motto "Ingenious diversity. Continued." this intelligent further development harmonizes two construction depths in one consistent system. Due to the great variability in thermal insulation - up to the passive house standard - and a large number of scalable options for sound insulation and safety, the new modular system offers a wealth of possibilities.



Image 1: Rendering of the HUECK stand at BAU 2023 (source: HUECK)

Soundproof window Silent Air

The new modular system also includes the innovative HUECK Lambda WS 090 SA I (Silent Air) soundproof window, which not only offers excellent soundproofing properties when closed, but also in the ventilation position. At BAU, HUECK is presenting the extension of the opening types to include a turn-tilt and a nightvent solution. In addition to burglary protection, HUECK offers a whole range of escape door functions for the door area with numerous scalable and combinable options for emergency exit and panic doors. "We are particularly pleased to be presenting our double-leaf full panic door in accordance with EN 1125 with certified RC3 burglary protection at BAU," emphasizes Leimkühler. "We are really very proud of this engineering achievement."

Extensions to the Trigon FS façade system

In addition to the extraordinary flexibility, another strength of the HUECK Lambda WS/DS 075/090 is that it can be combined with other HUECK systems – including the HUECK Trigon FS façade. With this innovative façade system, the Lüdenscheid system house has set entirely new standards in terms of versatility and flexibility. The intelligently designed solution is available in elevation widths of 40, 50 and 60 millimeters, which can easily be combined with each other. HUECK Trigon FS also impresses with an ingeniously simple load capacity extension and can be designed as a mullion-transom or transom-transom construction. "With the very filigree views, we have met the desire of architects and processors for particularly slim design solutions with our façade, without making any compromises in terms of stability," reports Leimkühler. "Thanks to the special construction, our facade also offers particularly uniform, aesthetic interior views. Of course, our façade system can also easily be combined with the entire HUECK product family." At BAU, HUECK is now presenting a much-requested extension of the Trigon modular system: the all-glass façade HUECK Trigon FS 050/060 SG with ETA approval from the DIBt, which is not only available in elevation widths of 50 and 60 millimeters, but is also absolutely compatible with the rest of the modular system. As a further highlight of the facade, HUECK is also presenting a study of the new, certified fire protection solution Trigon FS 050/060 FP30 in the same look, the market launch of which is planned for the coming year.

Further developments in fire protection and sliding systems

"As always, we have based our further developments and additions on the suggestions and wishes from architects and metal constructors," emphasizes Leimkühler. In the course of constant system expansion, for example, the successful and proven HUECK Lava modular fire protection system was supplemented by an inexpensive and simple solution with RC2 burglary resistance in accordance with EN 179/1125. HUECK also has brand new single-leaf fire protection doors and glazing combinations of class RC3 in its range. "In addition, fabricators now have an extended scope of tests combined with soundproofing properties available for the Lava modular system." HUECK has also developed a new type of opening for the highly thermally insulated HUECK Volato M+ sliding series in response to market demand. "The new scheme makes it possible to integrate particularly slim sashes into large lift and slide systems."

Sustainable aluminium alloy Hydro Circal

The HUECK systems will be presented in Munich under the main theme "Sustainability". All environmental aspects were taken into account during the development of the HUECK Trigon FS facade and the HUECK Lambda WS/DS 075/090 modular system and the ecological balance was considered in the product life cycle. Against this background, the Lambda and Trigon system kits are Cradle to Cradle silver certified. As part of Hydro Building Systems, HUECK is now opening up new possibilities for future-oriented, sustainable and CO2-reduced construction for architects and planners with the sustainable aluminium alloy Hydro Circal made from 75 percent end-of-life aluminium (post-consumer scrap).

HUECK by Hydro

Hydro completed the acquisition of Hueck on February 28, 2023 after the competition authorities in Germany and Austria gave their approval. The acquisition strengthens Hydro Building Systems' position in Europe and increases its presence. Hydro currently employs over 2000 people, including around 200 technicians, who specialize in developing sustainable solutions for windows, doors and facades for the construction industry. "Together, as one company, we will go beyond our sustainability strategy with low-carbon solutions. We are deepening our digital approach to efficiently support our customers as well as our innovation research. Our mission remains the same: we are fully committed to helping our customers realize new possibilities in the construction sector. We look forward to writing new chapters in our shared history together," explains Henri Gomez, Vice President of Hydro Building Systems.



Image 2: Rendering of the HUECK stand at BAU 2023 (source: HUECK)

ONE SYSTEM, TWO CONSTRUCTION DEPTHS AND ENDLESS POSSIBILITIES: "HUECK LAMBDA WS/DS 075/090 IS A REAL MULTITALENT"

Under the motto "Ingenious diversity. Continued.", the Lüdenscheid-based HUECK System GmbH & Co. KG is presenting its new modular and extraordinarily versatile system for windows and doors at BAU 2023: HUECK Lambda WS/DS 075/090 not only offers great variability in terms of thermal insulation - right up to Passive house standard, but also a variety of scalable options for sound insulation and security. As one of numerous highlights, the aluminium system house is presenting a double-leaf full panic door with certified RC3 burglary protection in Munich.

"Adapted noise protection, variable safety options, high thermal insulation and certified sustainability are required today for building in an urban environment," says Thomas Leimkühler, Head of HUECK System Management. "At the same time, architects and planners want filigree views, transparency and a high degree of design freedom." That is why the consistent HUECK Lambda WS/DS 075/090 modular system is designed as a flexible all-rounder. "I don't know of any other system on the market that is so versatile, so scalable and so economical to process." Another strength of the system, which has been thought through down to the last detail, is that it can be combined - including with the HUECK Trigon FS façade system.

One system – endless possibilities

Because the modular system offers completely uniform views in the two construction depths of 75 and 90 millimeters, it opens up a multitude of possibilities in terms of transparency, thermal insulation, sound insulation and security. For example, window sash weights of up to 300 kilograms and sash dimensions of up to 1,635 millimeters wide or 2,835 millimeters high are possible. The windows of the series can be designed with an integrated sash, as well as opening outwards, as a window façade, as a ventilation flap and with a French balcony. The modular system for the doors offers just as much variability: with leaf weights of up to 300 kilograms, widths of up to 1,500 and heights of up to 3,100 millimeters. Various door hinges and lock solutions open up an additional bandwidth, ranging from economical doors to elegant property and front doors.

Processing optimized down to the last detail

"We have been consistently implementing the principle of identical parts and processing, which is optimized from the point of view of the metalworker, for a long time," explains Jens Kochheim, the HUECK product manager responsible for the window area. "During further development, we have taken the modular HUECK Lambda WS/DS 075/090 system further, down to the last detail." Among other things, the symmetrical geometries for both construction depths allow the cross-series use of uniform connectors, glazing systems, accessories and fittings. All variable options, such as thermal insulation, burglary protection or soundproofing, can be implemented with comparatively little installation effort. "Our innovative HUECK GEN 4.0 window fitting is unrivalled, as it can be mounted quickly with standard installation times of just three minutes, even in the concealed version," says Kochheim. The HUECK engineers have also reduced the assembly effort to a minimum with a patented clamping technique for the roller door hinges.

Economic burglary protection

Depending on requirements, windows and doors from the HUECK Lambda WS/DS 075/090 series can be equipped with certified burglary protection up to RC3. "Especially with our windows, the burglary protection can be installed in an unrivalled manner and is therefore particularly economical," emphasizes Kochheim. "It can even be easily retrofitted without removing the window." For door security, the modular

system offers not only burglary protection but also escape door functions with numerous scalable and combinable options for emergency exit and panic doors. "The HUECK Lambda DS 075/090 leaves nothing to be desired, whether simple mechanical escape doors are required or a smart high-end solution with a kindergarten lock and door guard," states Dirk Vollmer, the HUECK product manager responsible for the door area. "An engineering achievement that we are particularly proud of is our double-leaf full panic door with RC3 burglary protection certified according to EN 1125." Hardly any other supplier has this in their range.

Thermal insulation up to the passive house standard

The thermal insulation of the HUECK Lambda WS/DS 075/090 can also be easily adapted to the respective requirements. With the two construction depths, the system meets every thermal requirement with the insulation variants "eco", "plus" and "pro" - from the economical solution to the certified passive house standard.

Soundproofing and ventilation

In addition, the new modular system offers real alternatives for adapted noise protection for construction projects in noisy environments. With HUECK Lambda WS 090, soundproof windows with a high level of noise reduction of up to 49 decibels can be realized as standard. With the same exterior view, the patented HUECK Lambda Silent Air soundproofing solution can also be integrated. It not only effectively protects against noise when the window is closed, but also absorbs 31 decibels of outside noise when the window is in the ventilation position. HUECK Lambda Silent Air can be combined in many ways and can be implemented in the modular system as an individual solution, with a top or bottom light or integrated into a window strip.

Certified sustainability

Property developers, planners and architects are increasingly faced with the challenge of working with a holistic approach that is as environmentally friendly and resource-friendly as possible. EPDs and the silver Cradle-to-Cradle (C2C) certification prove that HUECK Lambda WS/DS 075/090 meets particularly high standards.



Image 3: HUECK Lambda WS 075 (source: HUECK)



Image 4: HUECK Lambda DS 090 (source: HUECK)

HUECK DEMONSTRATES SOUND INSULATION COMPETENCE: PATENTED HUECK LAMBDA WS 090 SA I (SILENT AIR) WINDOW SOLUTION COMBINES SOUND PROTECTION AND NATURAL VENTILATION

At BAU 2023, HUECK System GmbH & Co. KG is placing an important focus on its special soundproofing expertise for facade, door and window systems. A highlight is the patented window system HUECK Lambda WS 090 SA I (Silent Air), a solution for high sound insulation with natural ventilation that is still unique on the market. In Munich, the Lüdenscheid-based aluminium system house is showing the integrated modular system with new opening types.

In order to create additional living space in the city centers despite the ever-shrinking space, even commercial areas and other noisy environments are being "densified". Against this background, HUECK has placed particular emphasis on soundproofing in the flexible modular system for facades, doors and windows. Even in the standard system, the HUECK Lambda WS 090 windows and the HUECK Trigon FS façade therefore achieve values of up to 49 decibels. As a rule, soundproof windows only reduce the sound pressure as long as they are closed. At the same time, the complete encapsulation from outside noise is often perceived as isolating. "Against this background, our patented sound insulation solution HUECK Lambda WS 090 SA I is an absolute highlight, as it absorbs the sound by up to 31 decibels even in the tilted ventilation position," explains Jens Kochheim, responsible HUECK product manager for the window area. "Already ten decibels are perceived as halving the noise." Lambda SA I therefore equally satisfies the need for rest and fresh air.

HUECK Lambda WS 090 SA I is based on the highly thermally and sound-insulated HUECK Lambda WS 090 window system and has been tested by several renowned testing institutes. Not only in terms of ventilation, but also visually, HUECK Lambda SA I offers planners and architects an aesthetic alternative to baffle panes or casement windows. In combination with HUECK Lambda WS 075/090, the same external views can be achieved for parts of the building that are exposed to noise and parts of the building that are less exposed to noise thanks to uniform face widths. HUECK Lambda WS 090 SA I is available as an individual solution, with a top or bottom light for quick ventilation or integrated into a row of windows and can be combined in many ways within the HUECK modular system. In addition to the turn or tilt variant, the window is now available in other opening types as turn-tilt or nightvent ventilation.

The innovative soundproofing solution is already being used successfully in large residential construction projects such as the Hafenspark quarter in Frankfurt, the Rhein 740 Tower in Düsseldorf, the Pergolenviertel in Hamburg and "The Fizz II" in Freiburg. In addition to the Lambda SA I standard solution, HUECK also offers object-specific special solutions for projects with particularly high noise protection requirements.



Image 5: Hueck Lambda WS 090 SA I
(source: Hueck)

HUECK PRESENTS AN EXTENSION OF THE TRIGON FS FAÇADE KIT: "ULTRA ELEGANT" ALL-GLASS FAÇADE HUECK TRIGON FS 050/060 SG

"Ultra slim - ultra strong - ultra flexible" are now supplemented by "ultra elegant". With the HUECK Trigon FS 050/060 SG, HUECK System GmbH & Co. KG has expanded the successful HUECK Trigon FS 040/050/060 façade construction with a structural glazing system. At BAU 2023 in Munich, the Lüdenscheid-based aluminium system house is presenting a new all-glass façade with a 22-millimeter joint, which - like the entire Trigon modular system - impresses with its great flexibility, economical processing and aesthetics. At the same time, the new structural glazing system meets the highest standards of thermal insulation, burglary protection and soundproofing.

"With the new all-glass facade, we are not only fulfilling a frequently expressed customer request, but are also consistently continuing the concept of our innovative Trigon FS facade construction," explains Johannes Driessen, HUECK product manager for the facade area. HUECK Trigon FS 050/060 SG is available in face widths of 50 and 60 millimeters and can be designed as a mullion-transom or transom-transom construction. The HUECK designers have also designed the new facade to be extremely flexible with regard to the load capacity. With coordinated construction depths of 50 to 250 millimeters, the well thought-out construction can be tailored to the respective requirement according to the modular principle. Sophisticated statics enable filling weights of up to 800 kilograms and thus particularly large pane sizes of up to 3,000 x 5,000 millimeters and 2,500 x 3,300 millimeters for fall protection. As with Trigon FS, the flexible load capacity extension allows for a higher static absorption of the filling weights with just one "click".

Like the entire modular system, the new all-glass variant also meets all modern energy efficiency requirements. The highly thermally insulated façade construction is available in two thermal insulation variants with a uniform sealing system for different requirements. "We at HUECK are also very proud of the high level of noise protection of up to 45 decibels that can be achieved in the standard system alone," emphasizes Driessen. "In addition, the all-glass facade can be designed with the same look as a burglar-resistant facade up to RC3." The RC-tested insert elements from the HUECK Lambda WS/DS series can also be easily integrated without any visual differences.

As always, the HUECK engineers not only had architectural aesthetics in mind for the all-glass modular system, but also the most economical processing possible. "We have consistently implemented the HUECK concept of simple processing and series compatibility at the highest level with this modular system," Driessen clarifies. This includes the particularly easy installation thanks to the patented, self-locking toggles and the use of the same parts with cross-series system components such as accessories, additional profiles, aids and tools. "We have coordinated the construction and processing in such a way that the production as a mullion-transom and transom-transom construction is possible with a uniform pool of tools." This is completed by an extensive range of accessories with sun protection connections, façade swords, variable consoles and wiring. "We also provide very extensive documentation with helpful structural pre-dimensioning, especially for planners and architects," says Driessen.

As with Trigon FS, the SG elevation widths can be combined as desired with uniform interior views. At the same time, the modular system is compatible with the entire HUECK product family. Thanks to a standard grid of six millimeters across all series, this new façade solution can also be easily combined with the window and door constructions of the HUECK Lambda WS/DS series.

In addition to flexibility and versatility, the HUECK Trigon FS 050/060 SG meets the sustainability requirements formulated in the HUECK World Life Balance corporate philosophy. "With our product concepts, we want to contribute to the more economical and efficient use of resources," sums up Driessen. "At the same time, we provide builders, planners and investors with a reliable basis for planning sustainable construction projects that are eligible for subsidies." That is why the HUECK Lambda WS/DS 075/090 window and door systems, as well as the HUECK Trigon FS and SG facade systems, not only have EPDs, but are also Cradle to Cradle Silver certified.

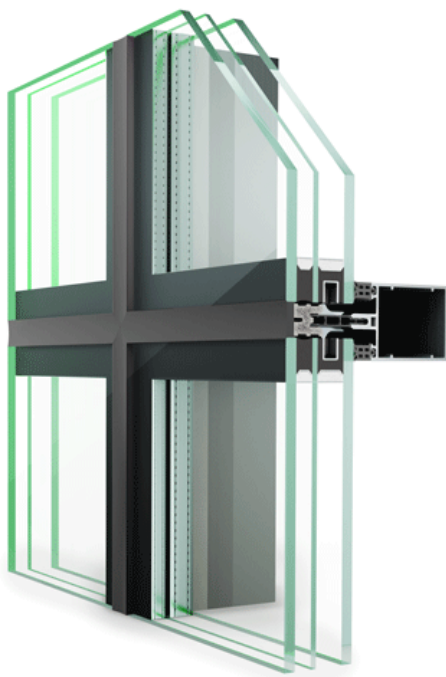


Image 6: Hueck Trigon FS 050 SG transom-transom
(source: Hueck)

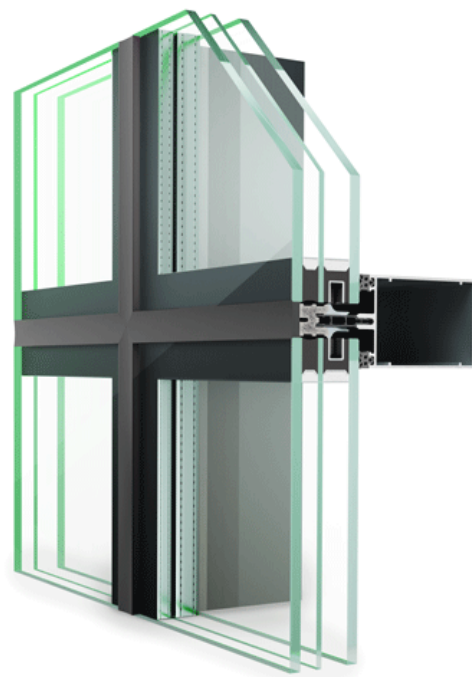


Image 7: Hueck Trigon FS 060 SG mullion-transom
(source: Hueck)

NEW FIRE PROTECTION DEVELOPMENT HUECK TRIGON FS 050/060 FP30: COMPATIBLE AND COMBINABLE WITH OTHER HUECK MODULAR SYSTEMS

With the well-engineered HUECK Lava fire protection series, HUECK System GmbH & Co. KG stands for certified fire protection solutions up to the highest fire resistance class in the construction industry. At BAU 2023 in Munich, the aluminium system house from Lüdenscheid is not only presenting a range of supplements for the proven system, but also the new development: The fire protection façade solution HUECK Trigon FS 050/060 FP30 on the same structural basis as the proven HUECK Trigon FS facade series.

As an extension of the HUECK Trigon FS facade construction, the new HUECK Trigon FS 050/060 FP30 fire protection facade is part of the modular system and is therefore visually identical with fire resistance class 30. "The new fire protection facade is based on the same construction as the Trigon facade construction kit," explains Johannes Driessen, HUECK product manager for the facade area. "Apart from a few necessary modifications, we are also consistently continuing the concept of combinability and compatibility among our modular systems." The market launch of the new fire protection facade is planned for the coming year. "A combination with tested insert elements from our tried-and-tested HUECK Lava fire protection series is also planned," announces Driessen. "Here not only our single-leaf, but also our double-leaf Lava fire protection door for the outside area can be used."

With HUECK Lava, the system house already has a mature, certified fire and smoke protection solution for fixed glazing and doors with fire resistance classes 30, 60 and 90 in its range. Because the modular system works with a cross-series identical parts concept and a uniform profile, Lava offers an identical look across all fire protection classes, as well as with smoke protection. Due to the uniformly low construction depth, the construction still appears filigree even in the highest protection class. "As always, with the current further developments and system additions, we have based ourselves on the suggestions and wishes of architects and metalworkers," emphasizes Sebastian Manka, HUECK product manager for the fire protection area. At BAU, HUECK is presenting an inexpensive and simple solution with RC2 burglary resistance in accordance with EN 179/1125. Also new are single-leaf fire protection doors and glazing combinations of class RC3. In addition, HUECK is now providing processors for the Lava modular system with an extended scope of testing combined with soundproofing.



Image 8: HUECK Lava 77-30 CE (source: HUECK)

EVEN MORE DESIGN FREEDOM: NEW SCHEME FOR THE HUECK VOLATO M+ LIFT-SLIDE SYSTEM

With large glass surfaces and slim elevations, the HUECK Volato M+ lift and slide system gives planners and architects a great deal of design freedom. At BAU 2023, the Lüdenscheid-based aluminium system house HUECK System GmbH & Co. KG is presenting the highly thermally insulated construction with a new scheme for integrating particularly slim sashes.

In architecture today, transparency and rooms flooded with light are in demand. With the HUECK sliding systems, this can be achieved easily and efficiently because they also allow large formats with narrow elevation widths. In addition to the lightweight sliding series HUECK Volato SLS and Volato SLS CS, HUECK's product range includes the HUECK Volato M+ lift-and-slide system, a construction with a particularly tight seal that is also suitable for use at great heights, i.e. on staggered floors and roof terraces. The modular system has been tested according to the demanding British CWCT standard, which is also required in many other countries beyond England.

State-of-the-art fittings ensure that this sliding series is particularly easy to use by reducing the effort required to open the sash and gently lowering the sash. For even smoother opening and closing, an optional electric lift and slide drive is available for the HUECK Volato M+.

The system can be designed with different lane schemes as a one- or two-lane lift-and-slide door as well as a "monorail" with a fixed panel and a mobile sash. In the course of the constant further development of the modular system, the HUECK engineers have now developed another alternative in response to market demand: The new scheme makes it possible to integrate particularly slim sashes into large lift and slide systems. Where previously only large sashes up to 440 kg were provided, small sashes up to 250 kg are now also possible in the MG scheme. HUECK Volato M+ can be coupled with the HUECK Lambda WS/DS 075/090 window and door platform and clamped into the HUECK Trigon FS façade construction.

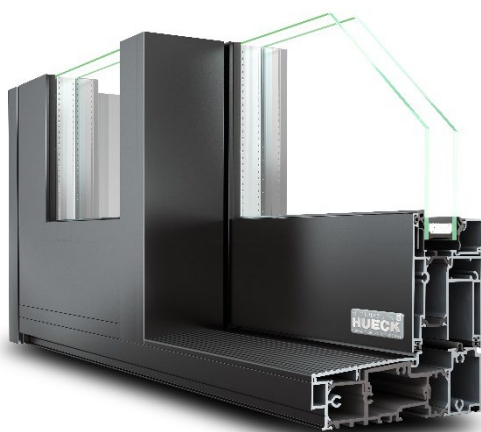


Image 9: Hueck Volato M+ fixed sash (Quelle: Hueck)

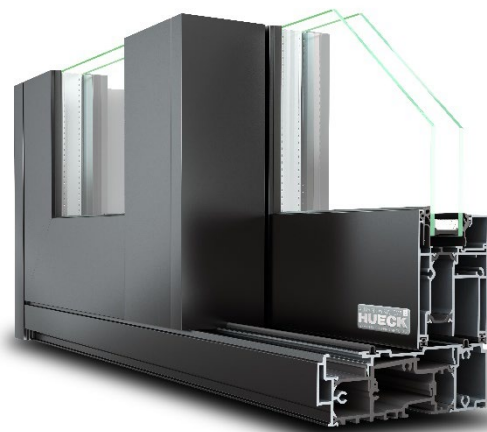


Image 10: Hueck Volato M+ two-lane (source: Hueck)

HUECK SYSTEMS MADE OF SUSTAINABLE ALUMINUM ALLOY HYDRO CIRCAL: RESOURCE-CONSERVING SOLUTION FOR SUSTAINABLE BUILDING

The construction and use of buildings make a significant contribution to climate change with a large proportion of CO₂ emissions. With the sustainable aluminium alloy Hydro Circal made of 75 percent end-of-life aluminium, the Lüdenscheid-based aluminium system house HUECK System GmbH & Co. KG is now opening up new possibilities for future-oriented, sustainable and CO₂-reduced construction for architects and planners.

"Today, property developers, planners and architects are increasingly faced with the challenge of working with a holistic approach that is as environmentally friendly and resource-saving as possible," says Thomas Leimkühler, Head of HUECK System Management. "That's why our designers are already focused on the efficient use of resources, optimal recyclability, good exchangeability and retrofitting as well as a long service life when developing the HUECK system solutions." It is with good reason that the HUECK Lambda WS/DS 075/090 window and door system and the HUECK Trigon FS facade system have EPDs and are both silver certified according to the strict Cradle-to-Cradle (C2C) guidelines.

After the merger with Hydro Building Systems (HBS), which was completed at the end of February, HUECK can now also offer the particularly sustainable aluminium alloy Hydro Circal in construction projects. With at least 75 percent, the proportion of reused end-of-life aluminium (post-consumer scrap) in this material is particularly high. As part of a true circular economy, this solution for circular construction minimizes the CO₂ impact over the entire product life cycle and thus makes a decisive contribution to improving the ecological balance. Hydro Circal's carbon footprint is a maximum of 2.3 kilograms of CO₂ per kilogram of aluminium.

"Since there are no physical or chemical differences to primary aluminium, we can use our cities as a huge source of raw materials in the long term through an intelligently designed, sustainable circular economy," explains Leimkühler. This consistent processing and recycling not only protects the raw material deposits, but also reduces the environmental pollution associated with bauxite mining.

"As part of the comprehensive sustainability strategy of Hydro Building Systems and HUECK, we can contribute to an even more economical and efficient use of resources. After all, Hydro Circal convinces with the high proportion of aluminium recycling on the market," sums up Leimkühler. HUECK thus provides builders, planners and investors with a reliable basis for planning sustainable and eligible construction projects, whose certification according to common sustainability tests such as LEED, DGNB or BREEAM is also simplified.



Image 11: Hydro Circal Logo
(source: HUECK)