

### SIKA SOLUTIONS FOR FENESTRATION REFERENCE PROJECTS WITH STRUCTURALLY BONDED WINDOWS



**BUILDING TRUST** 

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### WHY CHOOSE BONDED WINDOWS?

**FOR OVER 50 YEARS**, the success of European windows was driven by the development of tilt-and-turn hardware and insulating glass panes. The tilt-and-turn window is now established as one of the leading technologies worldwide.

In 1999, a team of engineers set out to innovate a new generation of windows. Their aim was to boost the attractiveness of wood windows, which were steadily losing market share. At the University of Applied Sciences for Architecture, Wood and Civil Engineering in Biel, Switzerland, scientists and top window manufacturers collaborated closely with Sika on the development of the structurally bonded window.

Bonding technology will now pave the way for new generations of windows that combine high design appeal with supreme technical performance at a reasonable cost.



Structurally bonded windows already have a proven track record for all types of frame material. Since their launch more than fifteen years ago, bonded assemblies have captured a significant market share in central Europe. This is underscored by the 30 million-plus bonded windows now performing to the full satisfaction and delight of their owners.

We at Sika pride ourselves on the fact that our adhesives and sealants are incorporated in most of these products. In developing window adhesives, we are able to draw on our decades of experience with UV- and weather-resistant adhesives for structurally glazed facades.



### RESIDENTIAL BUILDINGS

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### SINGLE-FAMILY HOME IN VORARLBERG

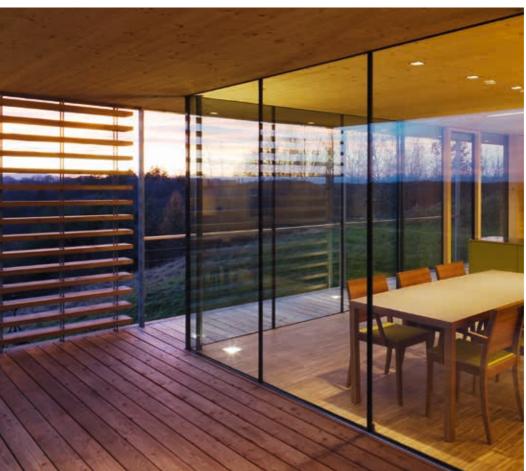
Floor-to-ceiling window units with structural glazing look

Project:Single-Location:VorarlbWindow manufacturer:WalchWindow type:Wood wGlass:Stepped

Single-family home Vorarlberg, Austria Walch Wood with stepped insulating glass Stepped insulating glass with silicone opacifier instead of ceramic screen print







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Left: Architectural master piece

Top right: Balcony door fitted flush with glass facade

Bottom right: Flowing transition between interior spaces and terrace

### SINGLE-FAMILY HOME IN SWABIAN ALPS

Floor-to-ceiling window units with barely noticeable frame component

Project:Single-Location:SwabiaWindow manufacturer:WalchWindow type:Wood wGlass:Stepped

Single-family home Swabian Alps, Germany Walch Wood with stepped insulating glass Stepped insulating glass with silicone opacifier instead of ceramic screen print

> Bottom: Heavily constructed building with wood siding

Top right: Large sliding doors





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### WEST ART ZURICH

Integration of high-end residential development in existing cityscape

Project: Location: Architect: Window type:

Zurich West Art Zurich, Switzerland Dutli + Sigrist Architekten Window manufacturer: 1a hunkeler AG Wood/aluminum

> Left: Floor-to-ceiling window units for open living environment

Right: Northern front overlooking river Limmat



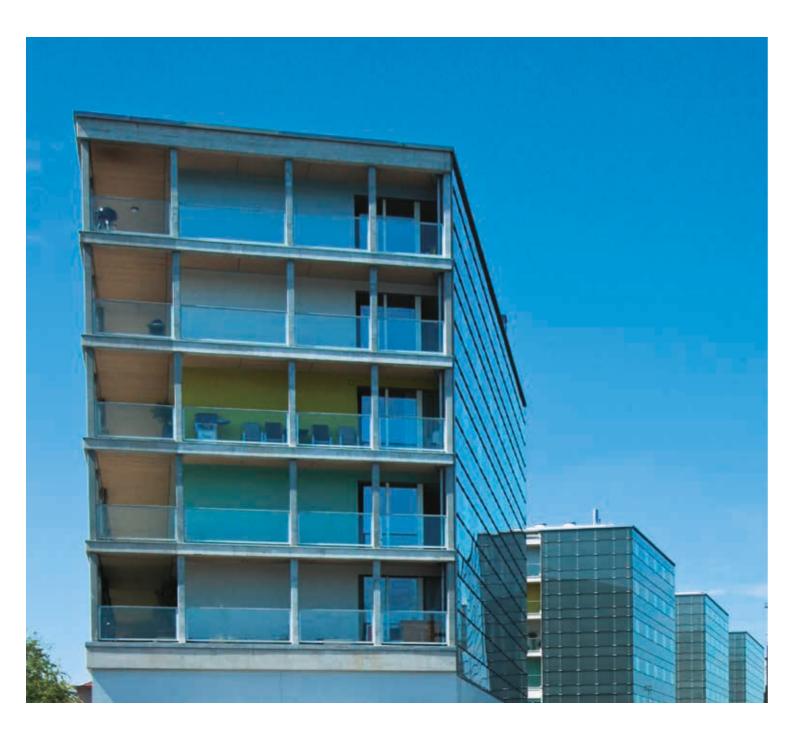


### TRIO DIETIKON

Wide balcony doors with heavy acoustical glass in elegantly slender PVC frame

Project: Location: Owner: Architect: Window manufacturer: Window type:

Trio Dietikon Dietikon, Switzerland Swiss Life AG SAM Architekten und Partner AG, Zurich EgoKiefer PVC







Left: Acoustical glazing on elevation facing railroad

Top right: Use mix with office, Industrial and residential units

Bottom right: Floor-to-ceiling glazing in living spaces

# GOLDSCHLÄGI SITE

Modern residential complex with stringent soundproofing requirements

Project: Location: Owner: Architect: Window manufacturer: Window type:

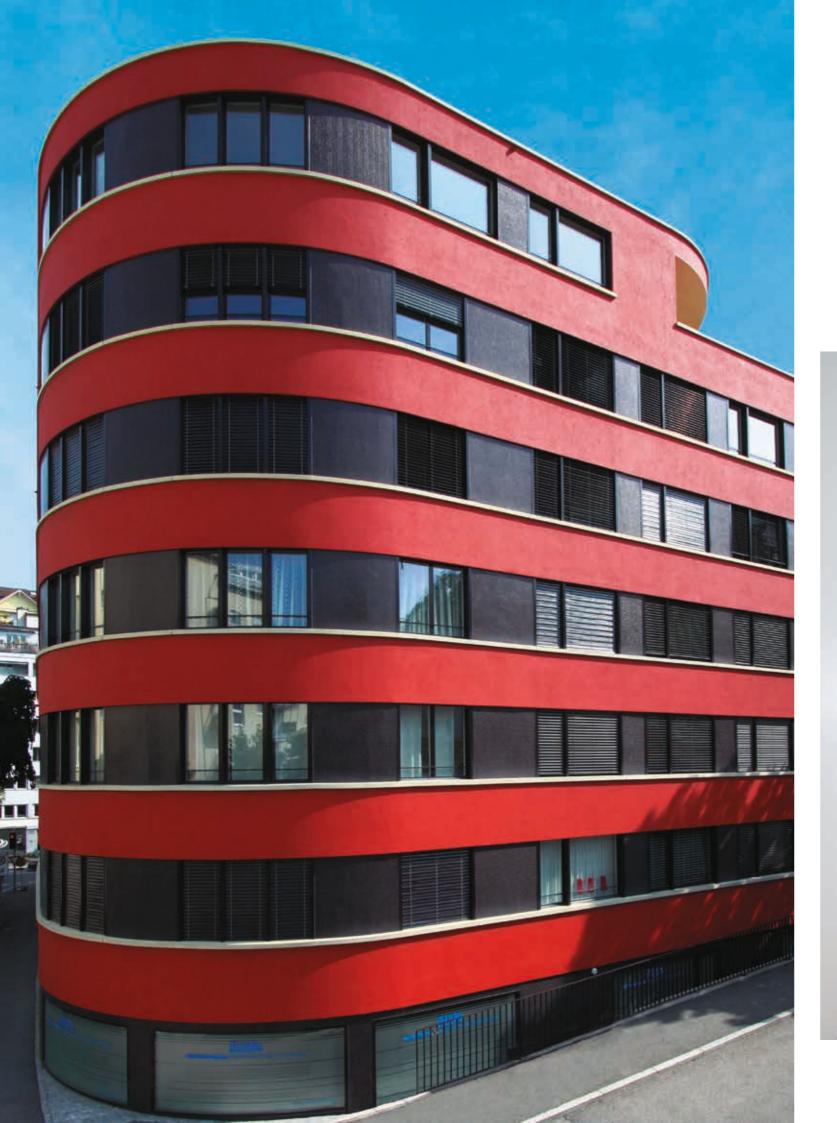
Goldschlägi site Schlieren, Switzerland Migros Pension Fund Annette Gigon/Mike Guyer Baumgartner AG Wood/aluminum





Bottom: 105 apartments overlooking main Zurich - Bern rail link

Top right: Southern facade with glass parapets



### LINIE 7

Wide balcony doors in slender, two-tone PVC frame

Project: Location: Architect: Window manufacturer: 1a hunkeler AG Window type:

Linie 7 Lucerne, Switzerland Schärli Architekten AG, Lucerne Wood/aluminum





Left: Integration of building in street plan

Right: Doorsets posing a structural challenge

### SUNNY WATT

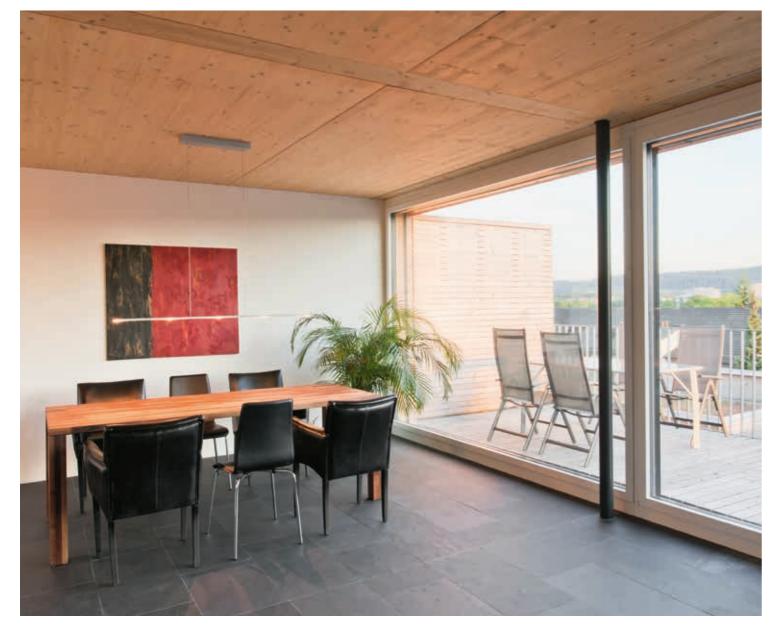
Homestyle wood/aluminum windows in passive house standard

Project: Location: Architect: Window manufacturer: Window type:

Sunny Watt Watt, Switzerland kämpfen für architektur ag 1a hunkeler AG Wood/aluminum with triple-glazed IGUs to Minergie-P Eco standard

> Left: Eco-friendly living environment with wood/ aluminum windows

Right: Wood-framed buildings with high glazing ratio





### SOPHIENHOF

Modern PVC windows in Europe's biggest passive house development

Project: Location: Architect: Window manufacturer: Window type: Glass: Special features:

Sophienhof Frankfurt/Main, Germany FAAG Technik AG, Frankfurt/Main Internorm PVC Triple-glazed IGU passive house standard





Bottom: Modern passive house in big city

Top right: 149 apartments in high living environment

### RESIDENTIAL DEVELOPMENT, EBIKON

Renovated housing with slender-framed window units

Project:Residential deviLocation:Ebikon, SwitzerArchitect:Cerutti PartnerWindow manufacturer:1a hunkeler AGWindow type:Wood/aluminur

Residential development Ebikon, Switzerland Cerutti Partner Architekten AG 1a hunkeler AG Wood/aluminum

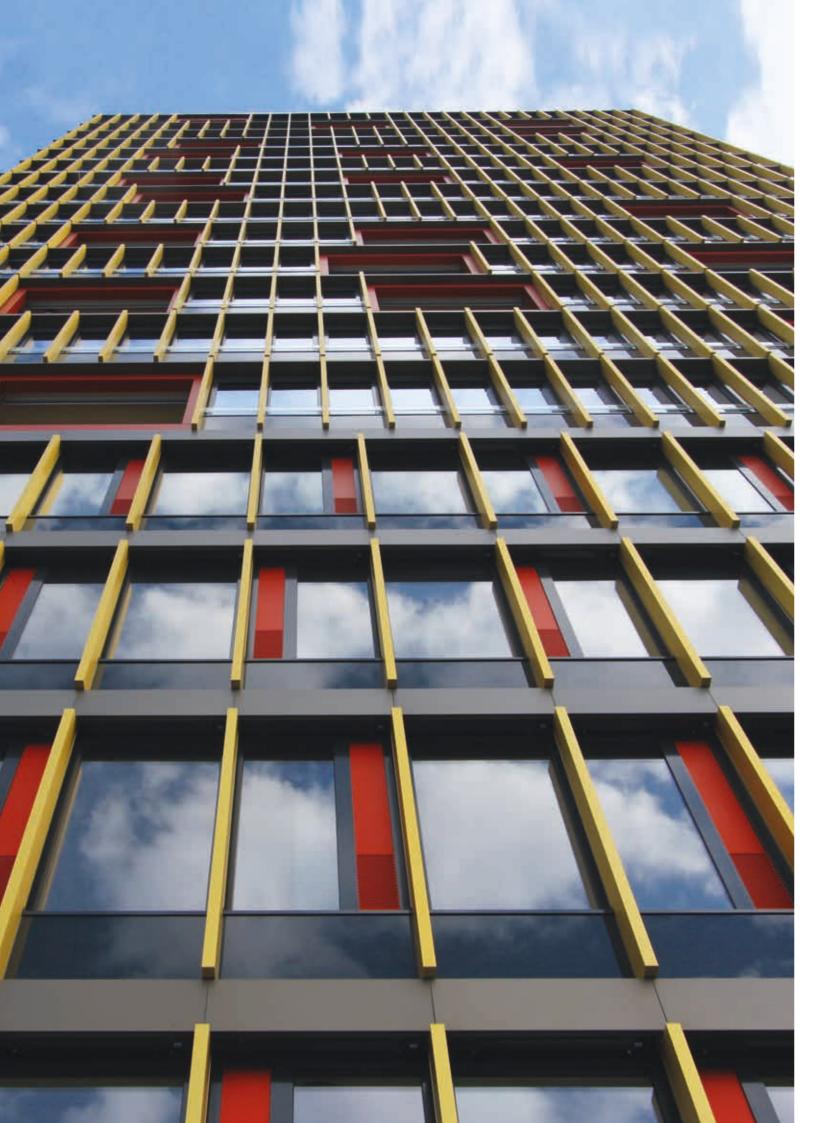
### Left:

Improved daylighting after renovation thanks to slimmer frames

Right: Partially glazed balconies as extension to living space







### COMMERCIAL BUILDINGS

26	Baar Hospital Double-skin facade with large wood/aluminum tilt-a turn windows
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### BAAR HOSPITAL

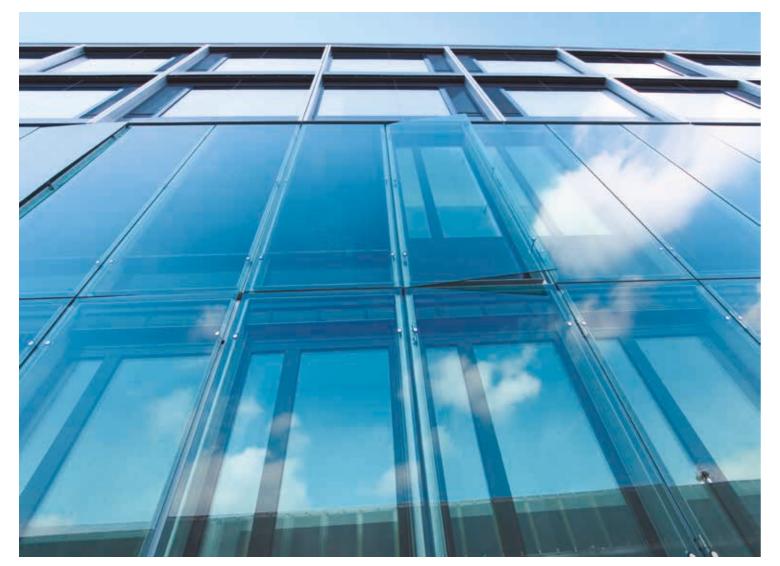
Double-skin facade with large wood/aluminum tilt-and-turn windows

Project: Location: Owner: Architect: Window manufacturer: Window type:

Baar Hospital Baar, Switzerland Canton of Zug Burckhardt + Partner AG, Zurich Baumgartner AG Wood/aluminum

> Left: Opening window behind curtain wall

Right: Southern front of Baar Hospital





### HOTEL AVIVA

Extra-wide balcony doors with two-tone PVC frame

Project:Hotel AVIVLocation:St. StefanArchitect:ArchitektuWindow manufacturer:InternormWindow type:Aluminum

Hotel AVIVA St. Stefan am Walde, Austria Architekturbüro Arkade, Linz Internorm Aluminum-faced PVC window







Left: Special feature: all rooms with south facing balcony

Top right: PVC windows with color aluminum facing

Bottom right: Brightly lit rooms thanks to down-to-floor glazing

# RESIDENTIAL AND COMMERCIAL LEUTSCHENTOWER

18-story high-rise with 3000 large wood/aluminum tilt-and-turn window units

Project:Residential and commercial LeutschentowerLocation:Zurich, SwitzerlandOwner:SwissReDesign + project architet:Bétrix Consolascio Architekten AG, ZurichProduction information:Zwimpfer Partner Architekten AG, ZurichWindow manufacturer:Baumgartner AGWindow type:Wood/aluminum with opening lights on all storiesGlass:All windows with triple-glazed IGUs

Left: Daylight-flooded spaces

Right: Opening windows on stories





### SIKA R&D CENTRE

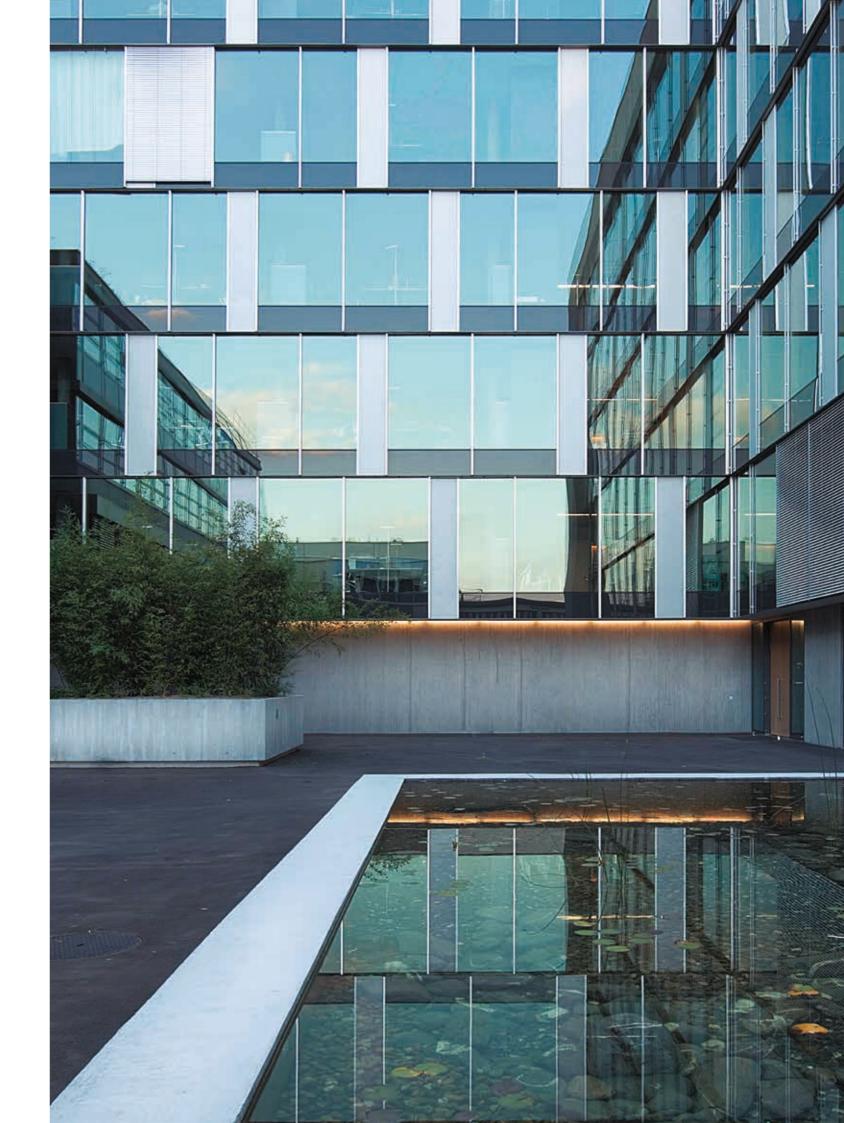
Windows with interior natural wood finish integrated in modern curtain wall

Project: Location: Owner: Architect: Window manufacturer: Window type:

Sika R&D Centre Zurich, Switzerland Sika AG Architekturbüro Andrea Roost, Bern Baumgartner AG Wood/aluminum



Left: Daylight for offices Right: Atrium of the building





### D4 CENTER Z5

Modern facade composition punctuated by frameless windows

Project: Location: Owner: Architect: Window manufacturer: Window type:

D4 Center Z5 Root, Switzerland Suva (Swiss Accident Insurance Fund) Scheitlin-Syfrig Architekten, Lucerne 1a hunkeler AG Wood/aluminum



Left: Contemporary woodwork facade

Right: Abundant daylight for offices

### HOTEL VICTORIA

Faithful renovation of historic building in old city core

Project: Location: Owner: Window manufacturer: Window type: Hotel Victoria Basel, Switzerland Coop Baumgartner AG Wood/aluminum

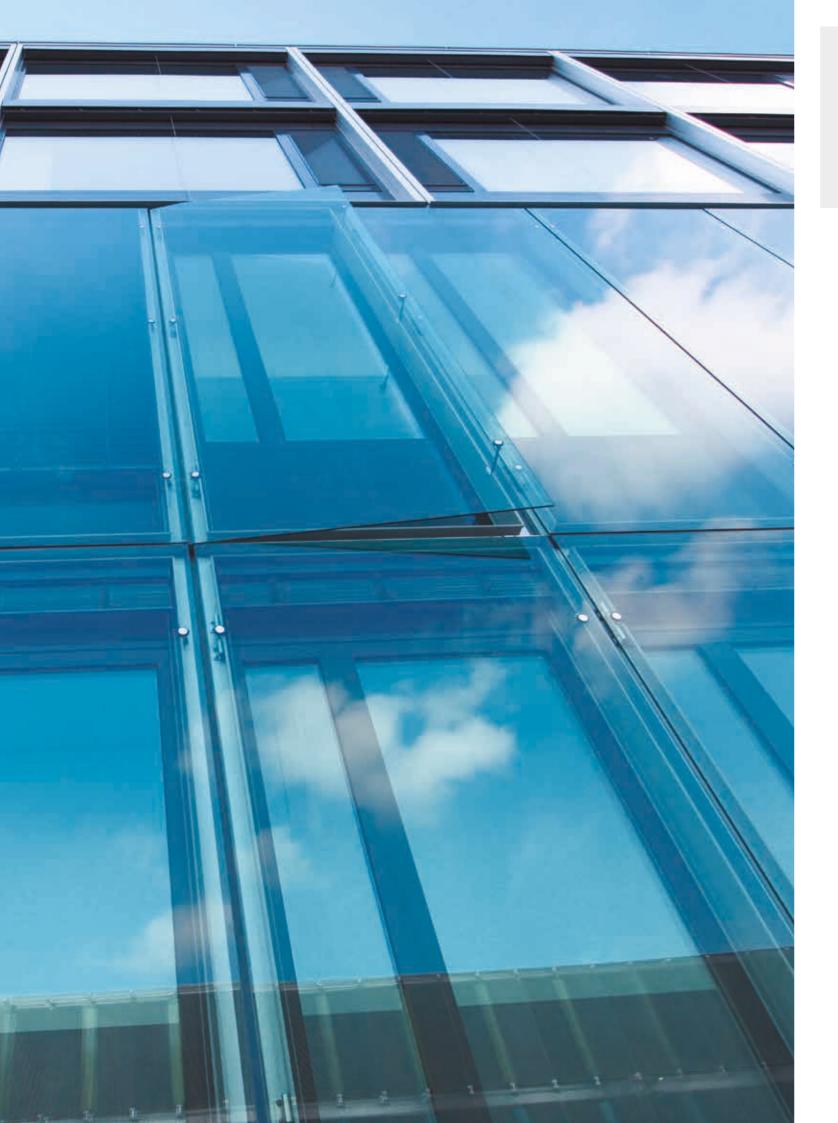
> Left: 107 rooms fitted with soundproof windows

Right: Triple-glazed IGUs subject to stringent soundproofing requirements





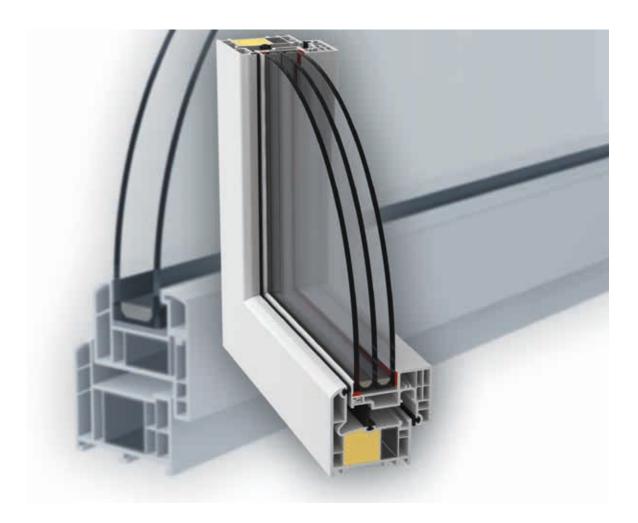




## WINDOW TECHNOLOGY - QUO VADIS

Windows with L frames achieve an optimum frame factor due to the fact that the insulating glass unit is wholly supported by the adhesive. Architects appreciate the resulting full-glass exterior, while the superior thermal and sound insulation in conjunction with a low frame-to-glass ratio makes a compelling argument for the entire design team. Owners are equally delighted by the long service life and minimal maintenance requirement for structurally bonded windows. Sika will provide you with detailed information on structurally bonded windows.

We will be glad to refer you to a local window contractor that deploys innovative bonding technology. Please send your e-mails to: fenestration.team@ch.sika.com



### GLOBAL BUT LOCAL PARTNERSHIP



### FOR MORE INFORMATION:



www.sika.com/facade

Sika AG, Switzerland, is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, facades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature high quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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