



WINDOWS MADE FROM HIGHTECH-MATERIAL RAU-FIPRO®

THE NEW WINDOW SYSTEM GENE0® – A FUTURE PROVE DESIGN WITH OUTSTANDING ENERGY EFFICIENCY

THE NEW DIMENSION IN WINDOW FABRICATION

GENEO® WINDOW PROFILES MADE FROM HIGH TECH MATERIAL RAU-FIPRO®

- The first fully reinforced window profile
- Made from high tech material RAU-FIPRO®
- The most energy efficient window profile of it's kind from Passive House Standard (eg $U_w = 0,73 \text{ W/m}^2\text{K}$) up to energy efficient buildings exceeding Part L 2010 (eg $U_w = 1,1 \text{ W/m}^2\text{K}$) with a U_f Value of up to $0,85 \text{ W/m}^2\text{K}$



Take advantage of the benefits this innovative window system can offer you!



THE NEW DIMENSION IN WINDOW FABRICATION

GENEO® WINDOW PROFILES MADE FROM HIGH TECH MATERIAL RAU-FIPRO®

- Unreached sound insulation without steel reinforcement (Glazing 50 dB = $R_{w,P}$ 47 dB) including optimum thermal insulation.
- Enhanced security up to WK 3. Class WK 2 without steel reinforcement – including optimum thermal insulation
- Smooth surface, easy to clean and optimised operation for maximum comfort
- Large elements with slim sight lines for optimum solar energy gain and modern architecture
- High investment security because of meeting and exceeding today's and foreseeable Building Regulation Standards and therefore long term value for your property.



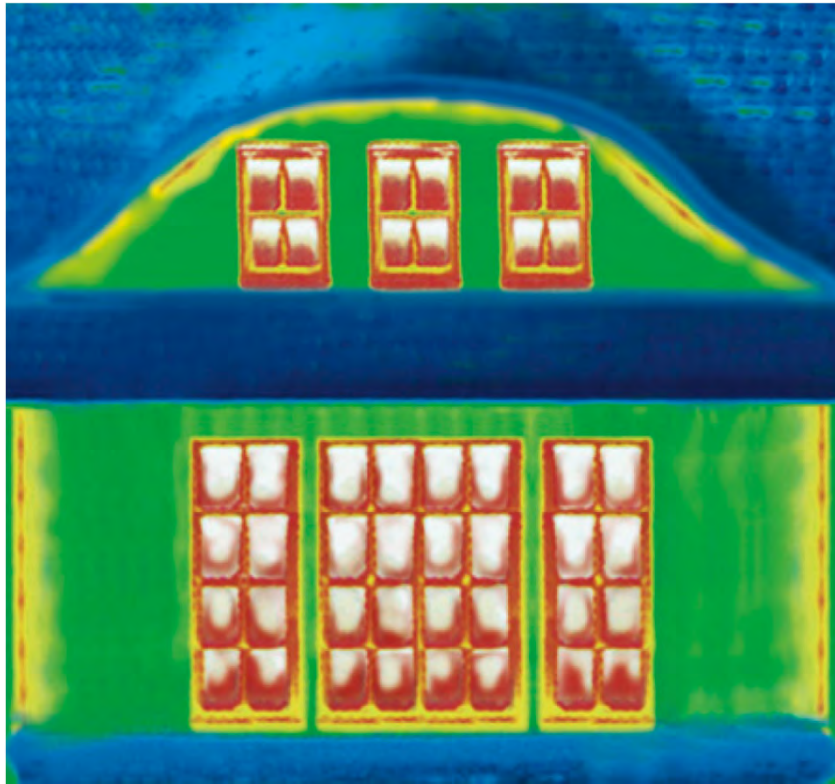
HIGHTECH IN ENERGY EFFICIENCY

HIGHEST ENERGY SAVINGS AND BEST COMFORT FOR GENERATIONS

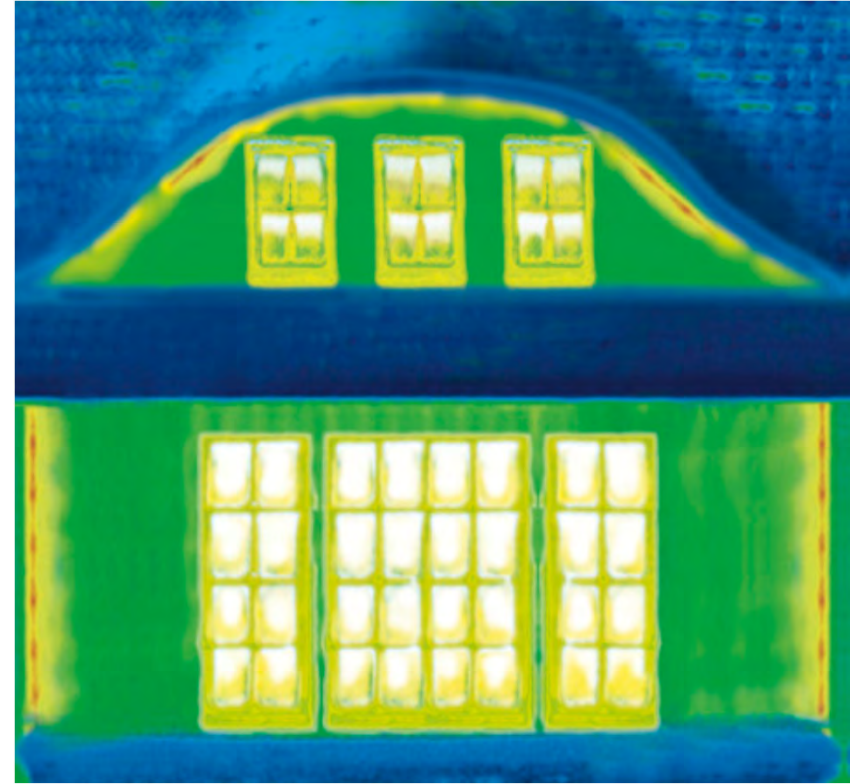


OUTSTANDING THERMAL INSULATION

GENEO® SETS THE GOAL IN REGARDS TO ENERGY SAVING



Before renovation: old timber windows. Especially the window areas loose a lot of energy (picture: red).



After replacement: reduced energy losses using the GENEIO® window system.

OUTSTANDING THERMAL INSULATION

GENEO® SETS THE GOAL IN REGARDS TO ENERGY SAVING

1 GENEО® MD plus Passive House Standard

U_g -Value = 0,5 W/m²K
 U_f -Value = 0,91 W/m²K

 **U_w -Value = 0,73 W/m²K ***

Example calculation **

Saving with GENEО® MD plus per year:

Oil: 1.341 Litre

In £: 1.006 £

CO₂-Saving: 3.621 kg

2 GENEО® MD plus Passive House Level

U_g -Value = 0,6 W/m²K
 U_f -Value = 0,91 W/m²K

U_w -Value = 0,80 W/m²K *

Example calculation **

Saving with GENEО® MD plus per year:

Oil: 1.299 Litre

In £: 974 £

CO₂-Saving: 3.507 kg

3 GENEО® MD plus – exceeding Building Regs Part L 2010

U_g -Value = 1,0 W/m²K
 U_f -Value = 0,91 W/m²K

U_w -Value = 1,1 W/m²K *

Example calculation **

Saving with GENEО® MD plus per year:

Oil: 1.136 Litre

In £: 852 £

CO₂-Saving: 3.067 kg

* Window Size 1230 x 1480 mm

** Basis: Timber-/PVC Window 1970: U_w about 3,0 W/m²K, Total window area 52 m²,
Fuel: Oil (price assumption: 75 p/Litre)

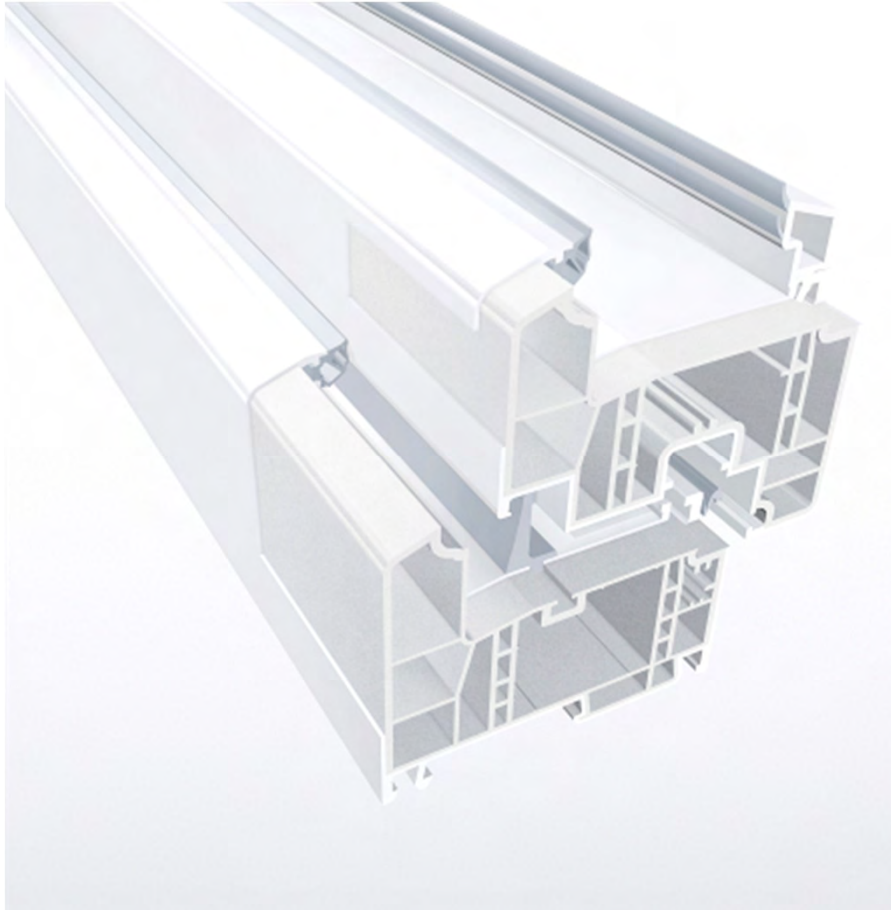
INNOVATIVE AND FUTURE PROVE

MODERN MATERIALS FOR TOMORROWS VALUES



GENEO® – A VISION BECOMES REALITY

THANKS TO HIGH TECH MATERIAL RAU-FIBRO®

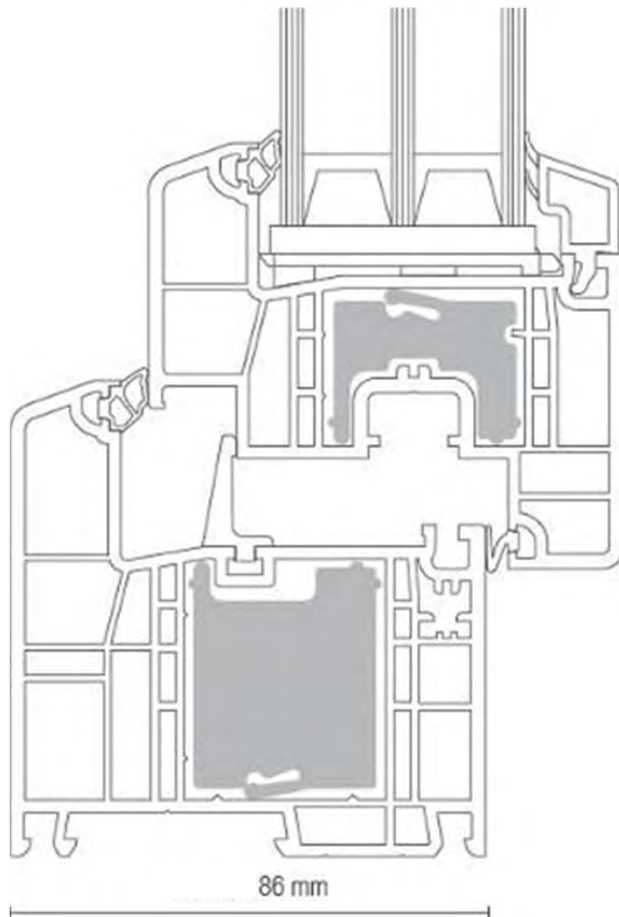


Key Performance Criteria:

- High tech material RAU-FIPRO®
- First fully reinforced window profile
- Substantially improved structural strength because of fibre reinforced material mix
- Outstanding thermal performance:
 U_f Value up to $0,85 \text{ W/m}^2\text{K}$
- Enhanced security without steel reinforcement (European standard WK2)
- Sound insulation without steel reinforcement (Glazing $50 \text{ dB} = R_{w,P} 47 \text{ dB}$)

PERFECT WINDOW DESIGN

TECHNICAL DETAILS



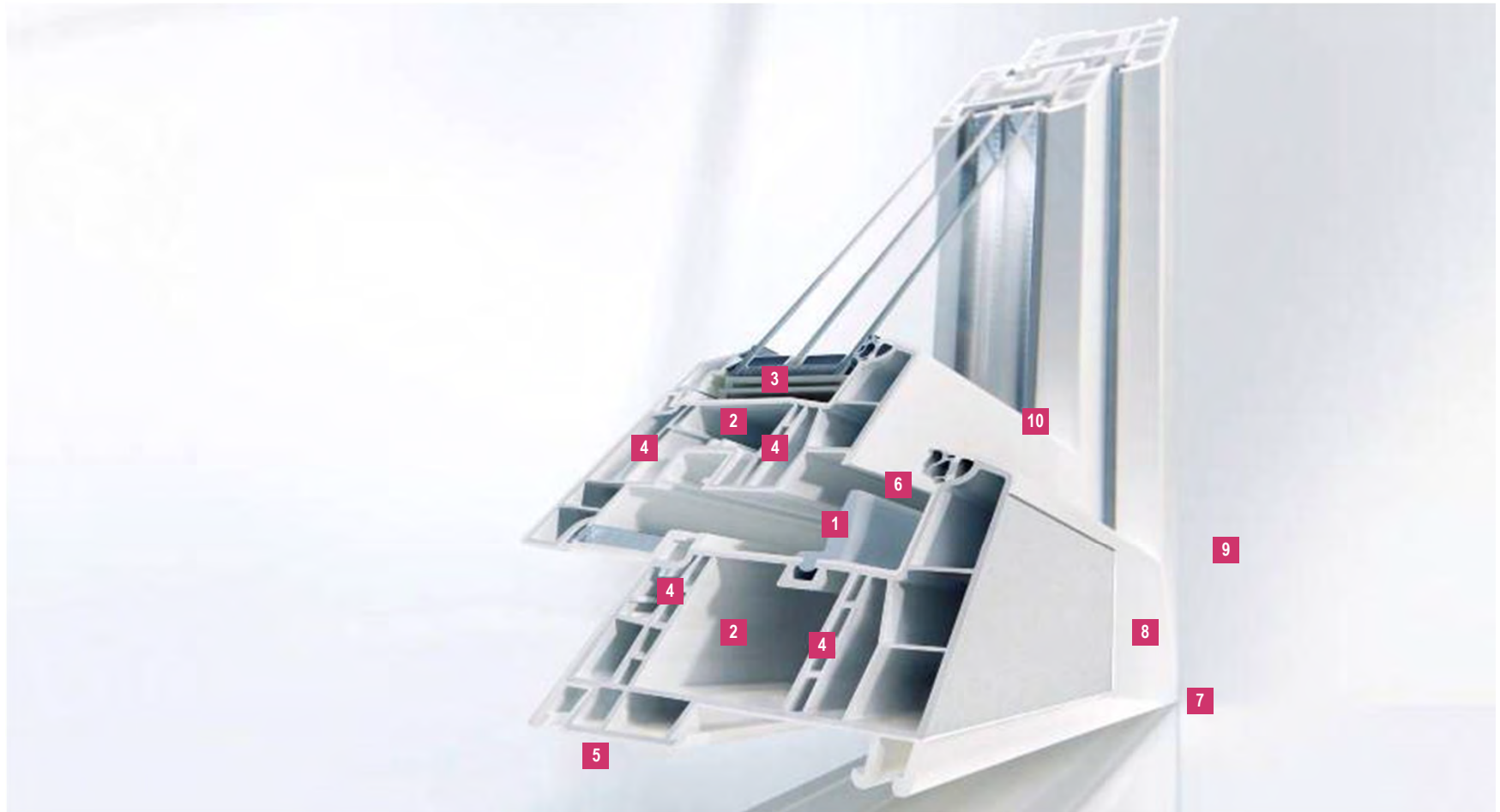
Profile Depth	86 mm / 6 chambers
Thermal Insulation	U_f up to $0.85 \text{ W/m}^2\text{K}$
Sound Insulation	Glazing 50dB = $R_{w,P}$ 47 dB
Air Permeability EN 12207	Class 4
Water Resistance EN 12208	Class 9A
Enhanced Security	up to WK3 WK2 without steel
Surface	smooth, easy to clean

Ideal for energy efficient buildings, regardless if new build or refurbishment. From current Building Regulations up to Passive House Standard.



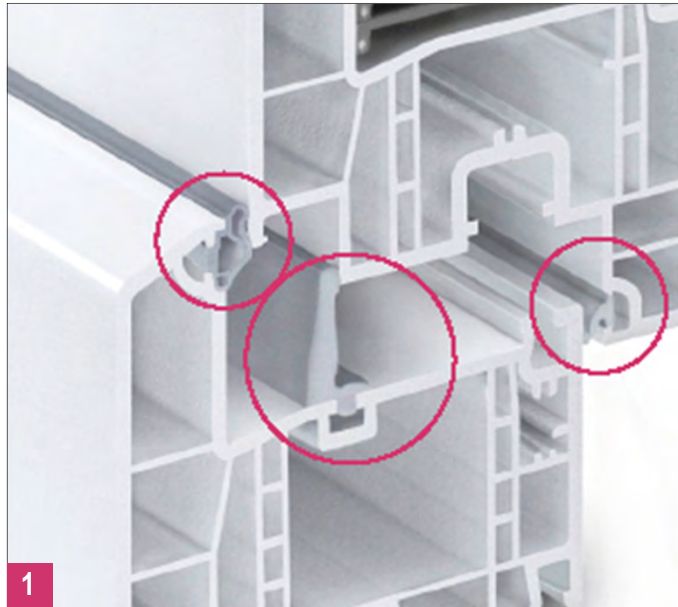
PERFECT WINDOW DESIGN

TECHNICAL DETAILS



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



Centre Seal

- Three continuous sealing levels in highest quality
- High elastic, durable gasket material for long design life
- Gaskets already pre-inserted into profiles for improved window fabrication process



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



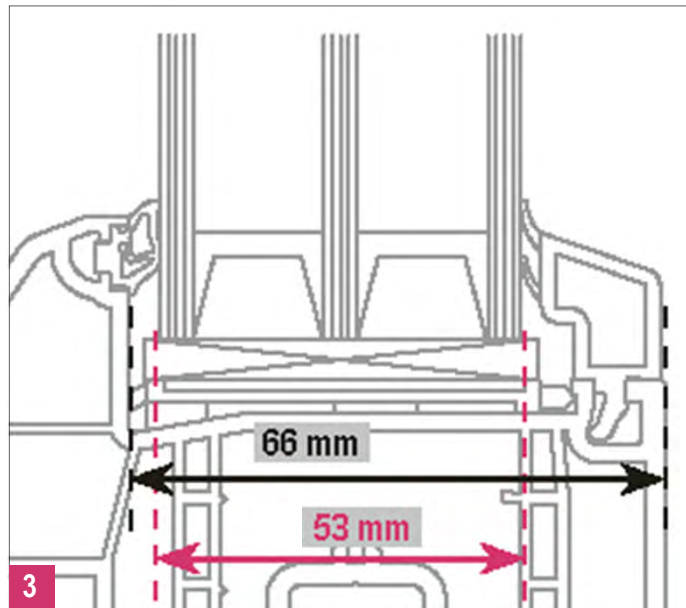
Function Chambers

- Optimise thermal performance of GENEEO® Function Chambers with Thermo Modules
- For extra large elements possibility for additional reinforcement



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



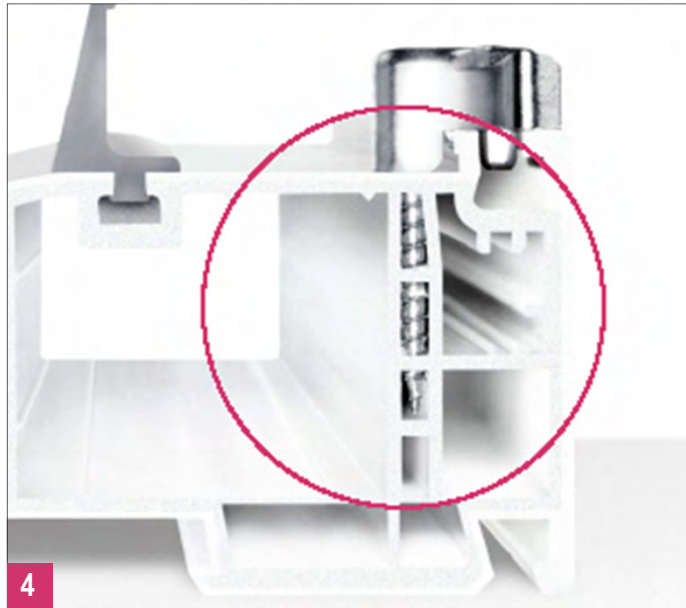
Rebate

The large rebate of 66 mm enables the use of sealed units or panels up to 53 mm.



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



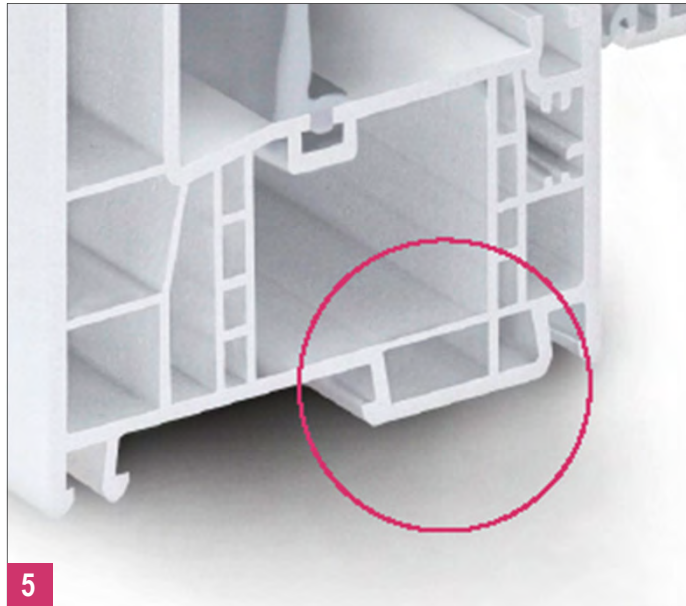
ISS – Integrated Stiffening System

- patented
- With integrated screw channels and additional torsion stability
- Resulting in highest pull out strength and profile stability



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



Installation Surface

Optimised installation surface, therefore more efficient and quicker installation of GENEEO® windows.



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



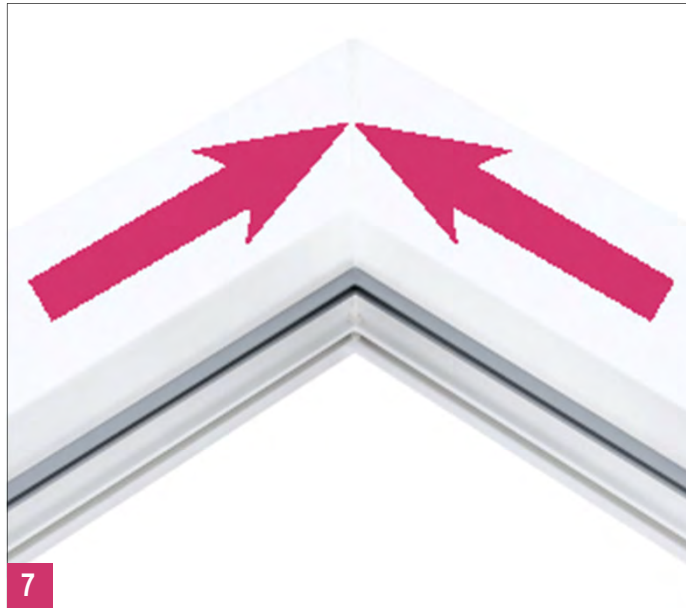
Open and Close

- Reduced closing pressure because of new gasket concept and innovative profile design
- Easy opening and closing
- Substantially increase comfort



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



Corner Stability

In contrast to conventional profiles GENEО window profiles are fibre reinforced up into the corner, is completely welded and results in a perfectly stiff corner stability.



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



Surface

GENEO® profiles convince because of smooth and easy to clean and since years proven REHAU surface quality.



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



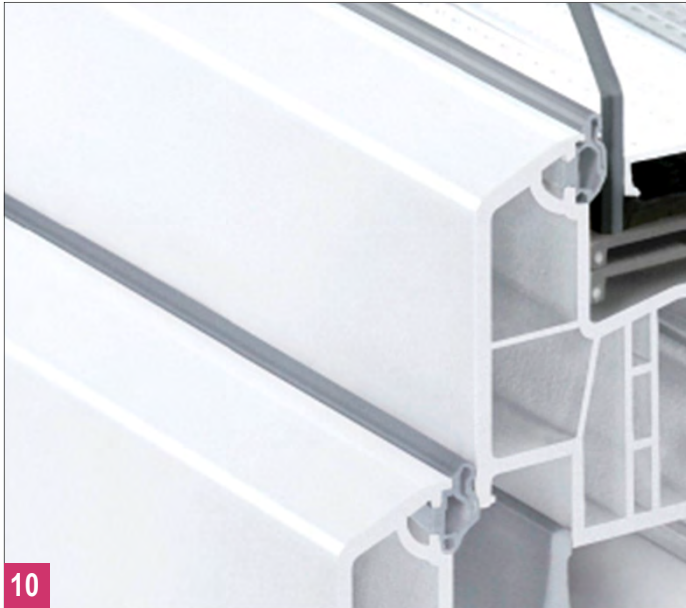
Sight Lines

Stability of the profile design enables elegant slim sight lines, also for large elements.



PERFECT WINDOW DESIGN

TECHNICAL DETAILS



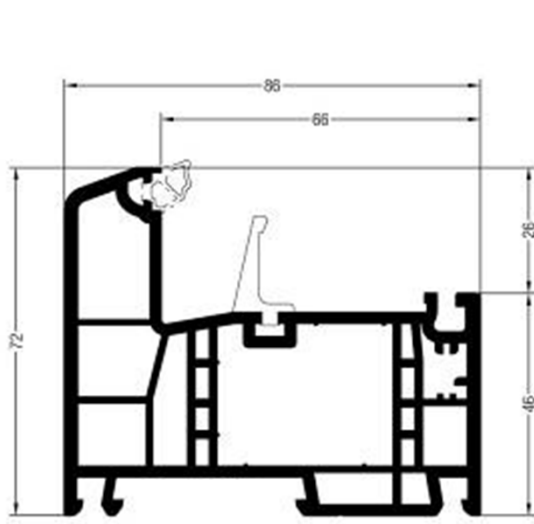
Sash Design

Design sash with pleasing appearance.

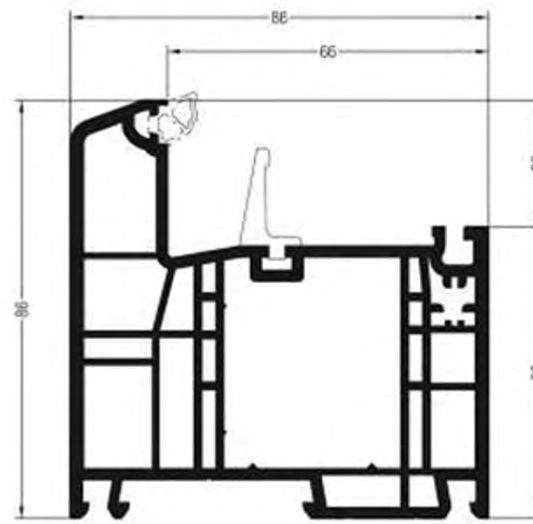


GENEO® – PROFILE RANGE (START PACKAGE)

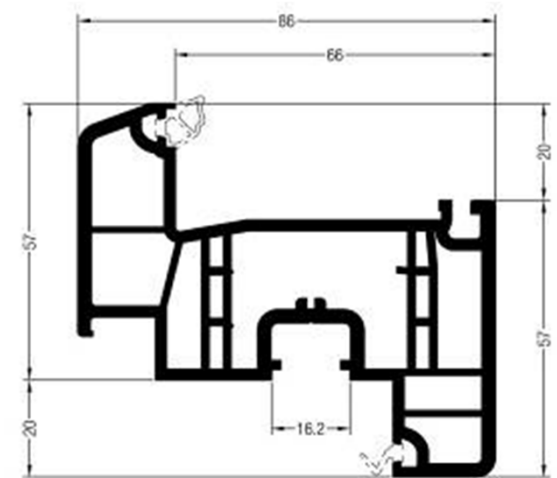
FIBRE REINFORCED



Outer Frame 72



Outer Frame 86

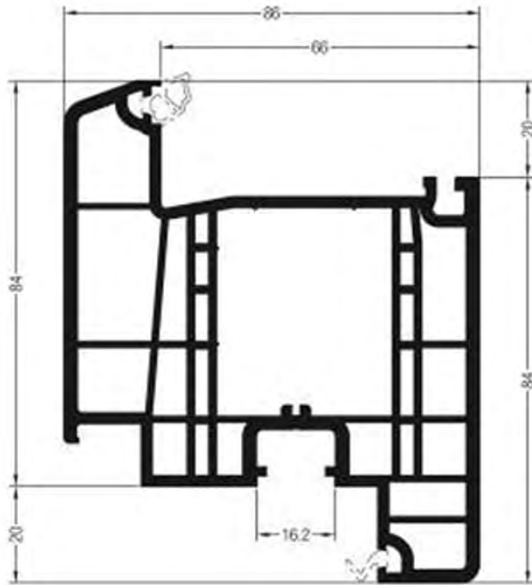


Sash Z 57

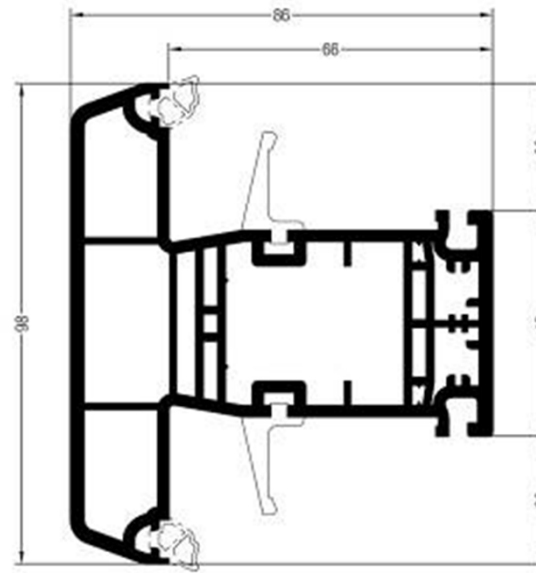


GENEO® – PROFILE RANGE (START PACKAGE)

FIBRE REINFORCED



Sash Z 84

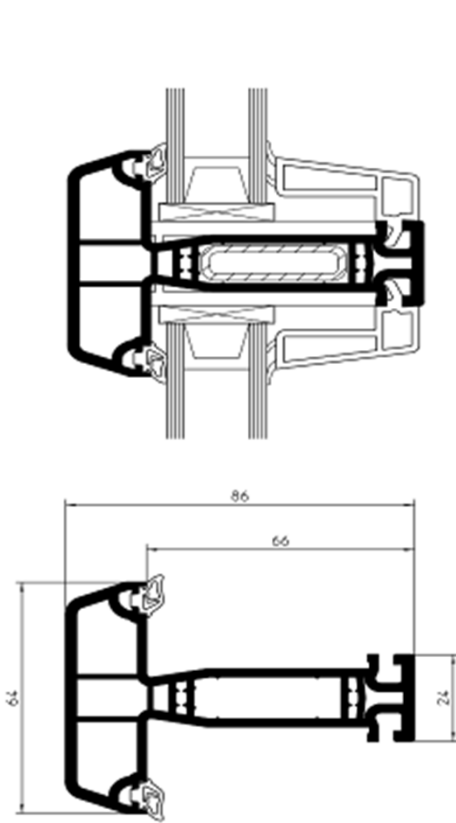


T Mullion/Transom 98 MD

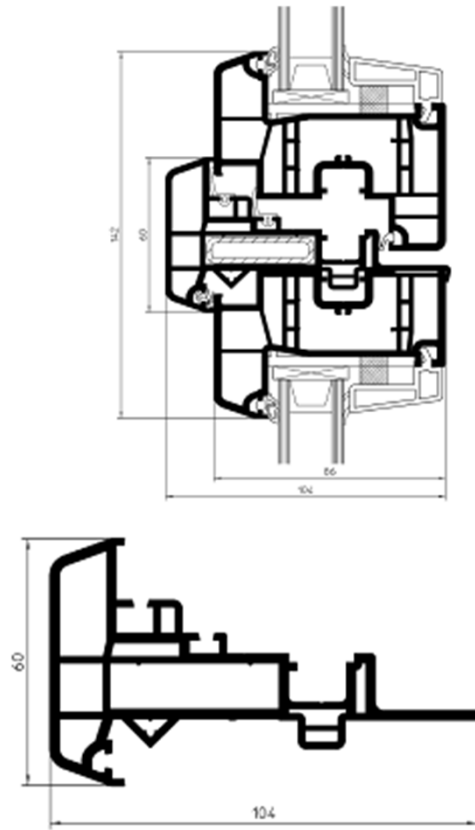


GENEO® – PROFILE RANGE (START PACKAGE)

PVC



Georgian Bar 64

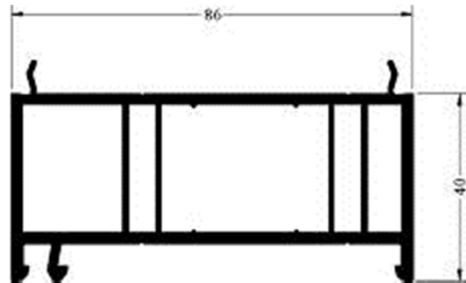


Dummy Mullion

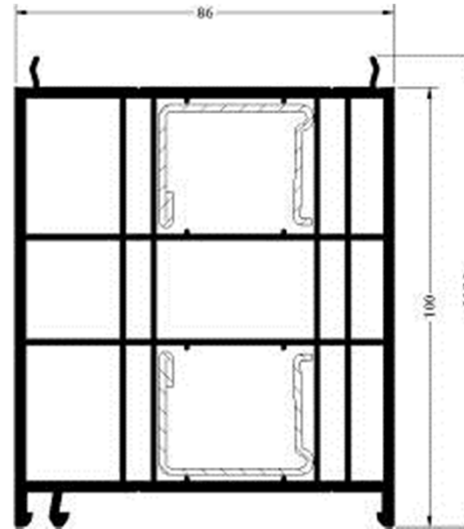


GENEO® – PROFILE RANGE (START PACKAGE)

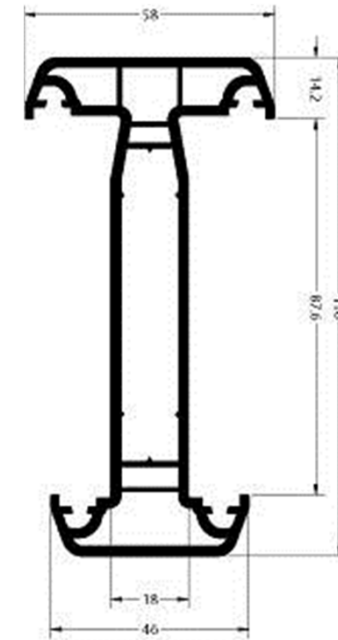
PVC



Add On 40 mm



Add on 100mm
(machined 60 mm)

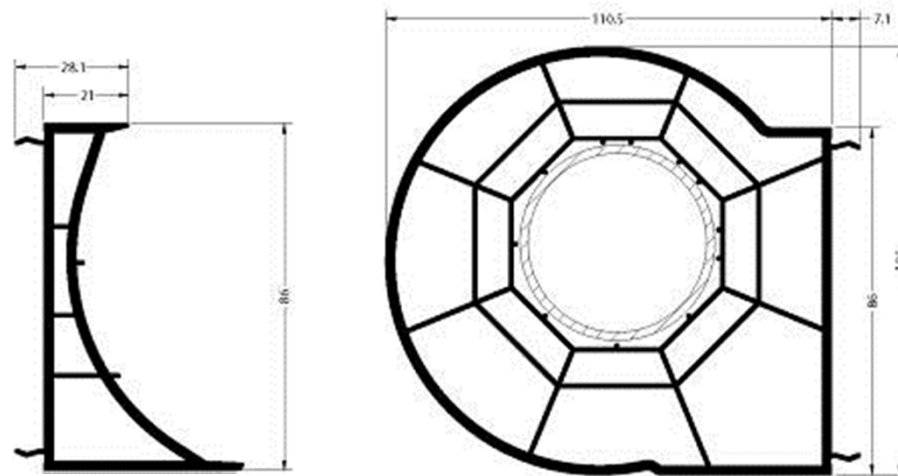


Expansion Profile



GENEO® – PROFILE RANGE (START PACKAGE)

PVC



Variable Angle Coupler



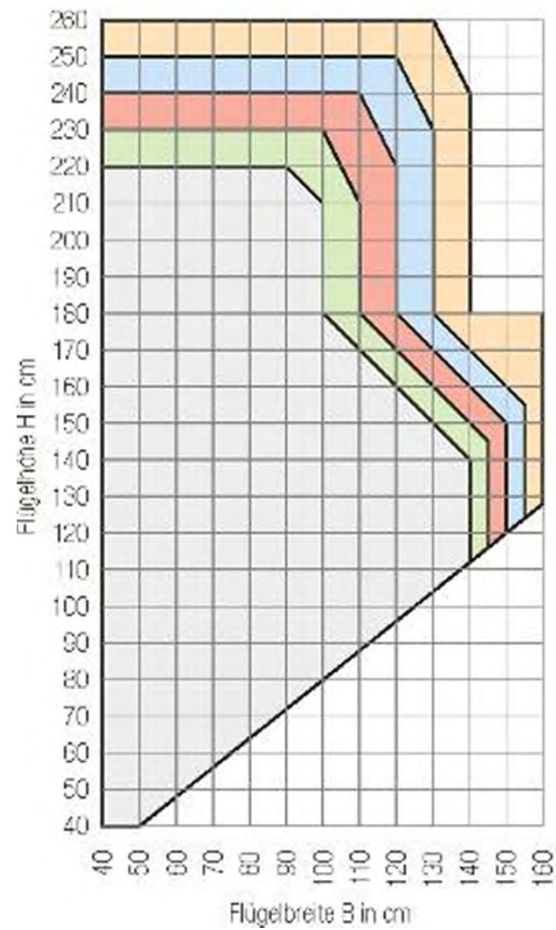
NEW DIMENSIONS

GENEO® OFFERS GREATER DESIGN FLEXIBILITY IN REGARDS TO ELEMENT SIZES



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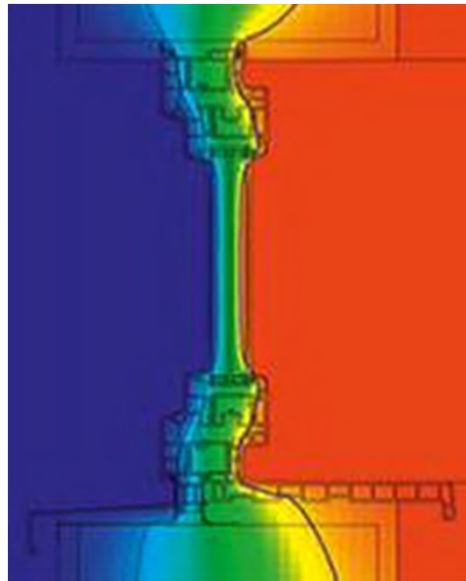
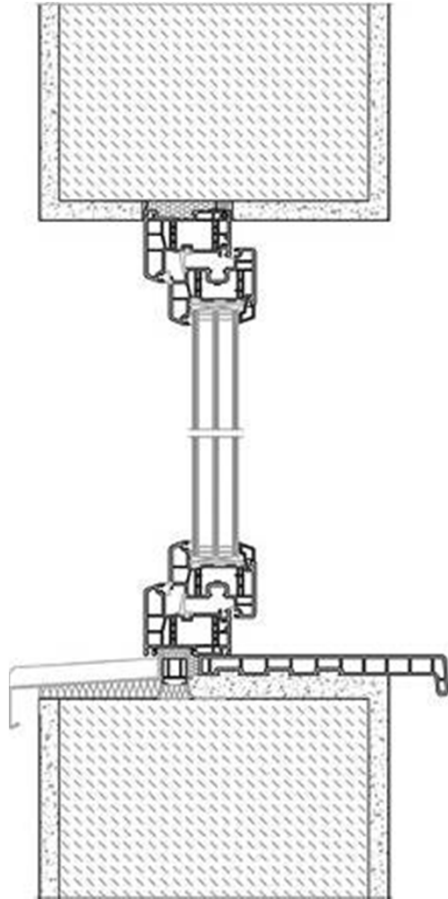


	Armierung im Flügel umlaufend	REHAU Verklebung Glas-Flügelrahmen
	-	-
	-	-
	-	ja
	Stahlarmerung 1,5 mm	-
	Stahlarmerung 1,5 mm	ja
	Stahlarmerung 2 mm	-
	Stahlarmerung 2 mm	ja
	Stahlarmerung 2 mm	-
	Stahlarmerung 2 mm	ja

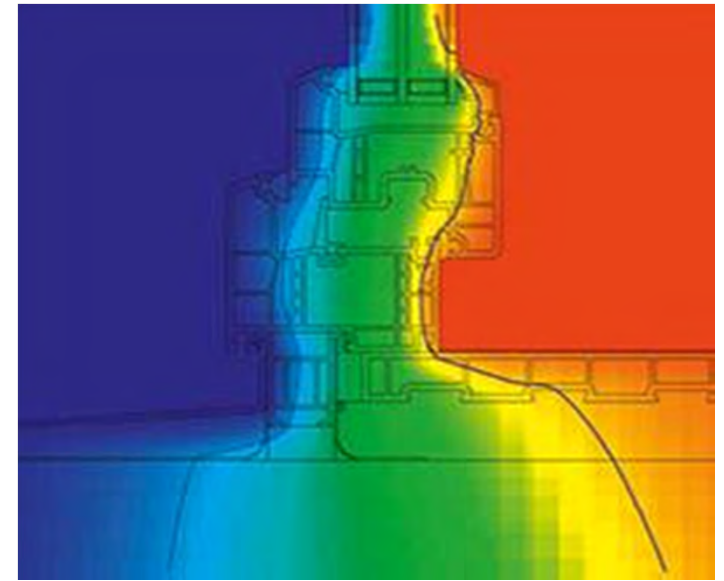


INSTALLATION

GENEO® – VARIETY OF INSTALLATION OPTIONS TO MINIMISE THERMAL BRIDGES



Isotherm 13 °C

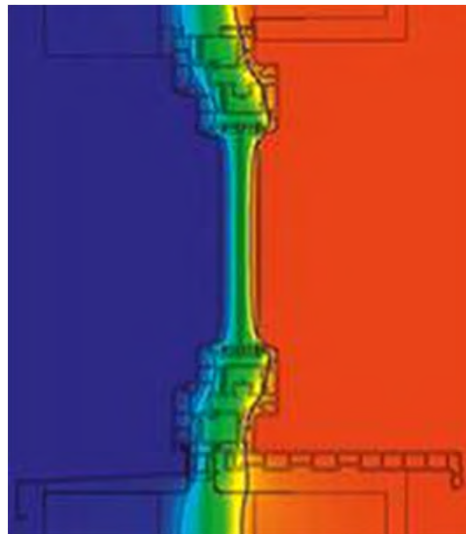
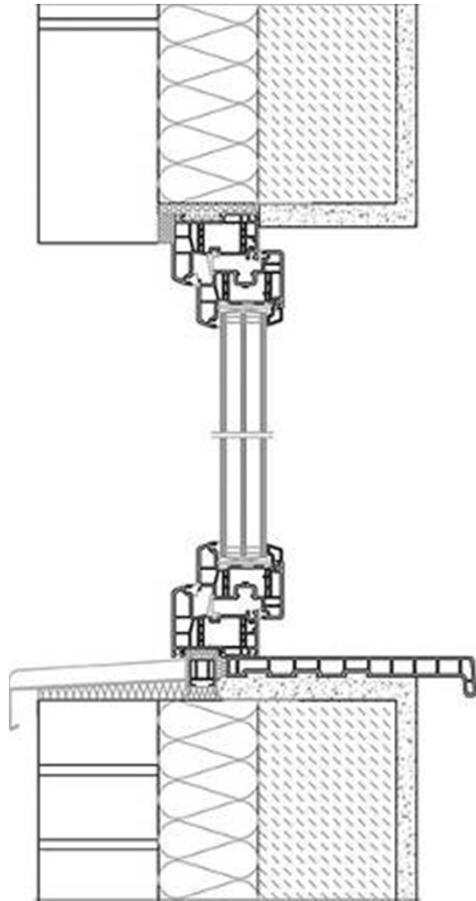


Isotherm 13 °C

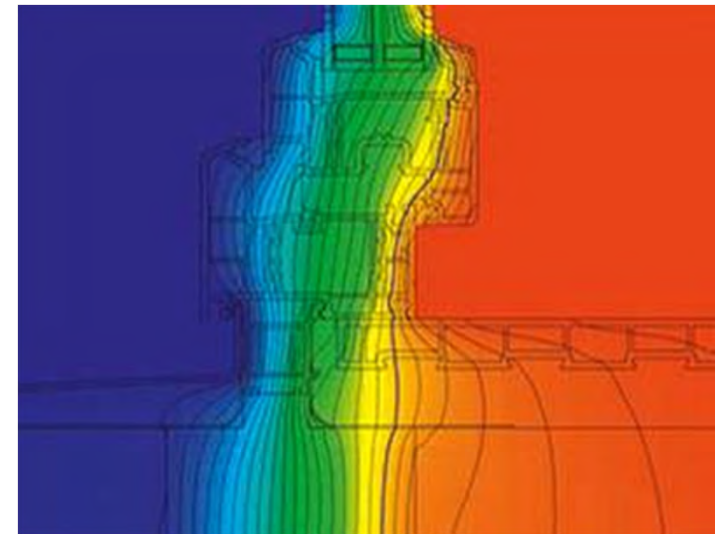


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Isotherm 13 °C

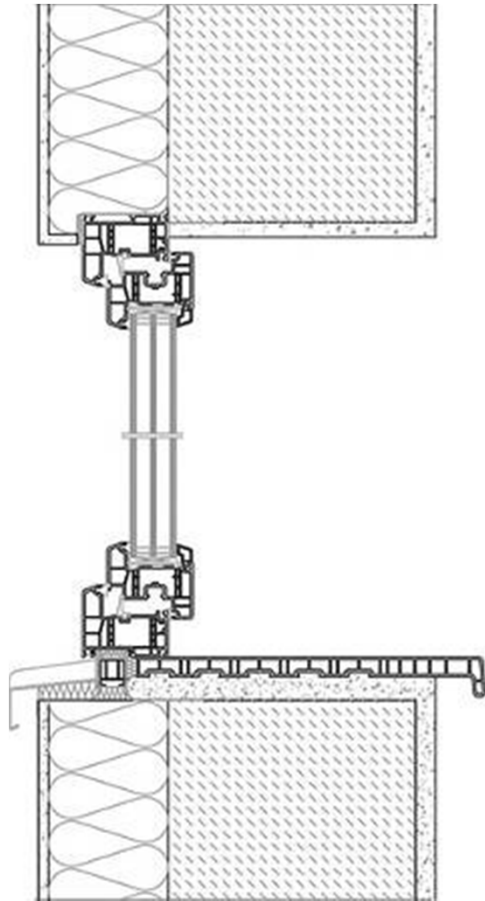


Isotherm 13 °C

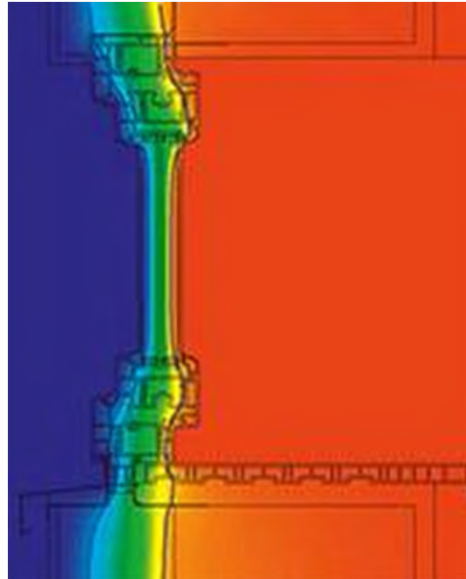


INSTALLATION

GENEO® – VARIETY OF INSTALLATION OPTIONS TO MINIMISE THERMAL BRIDGES



Within insulation area



Isotherm 13 °C

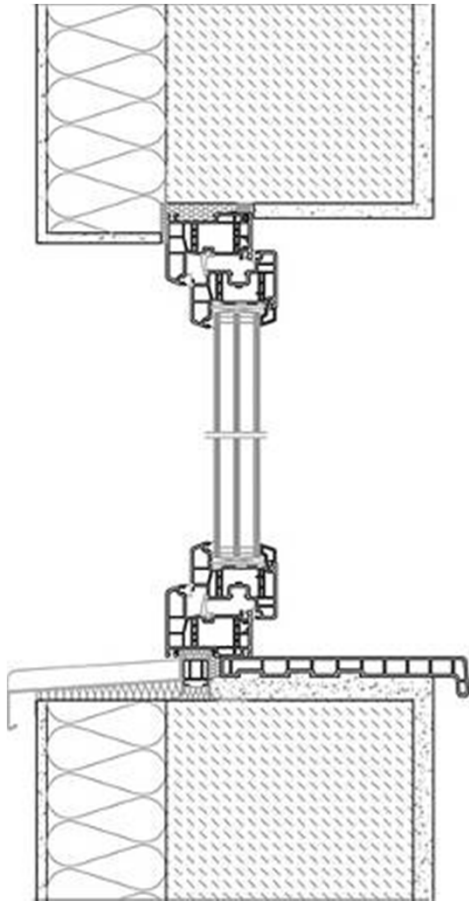


Isotherm 13 °C

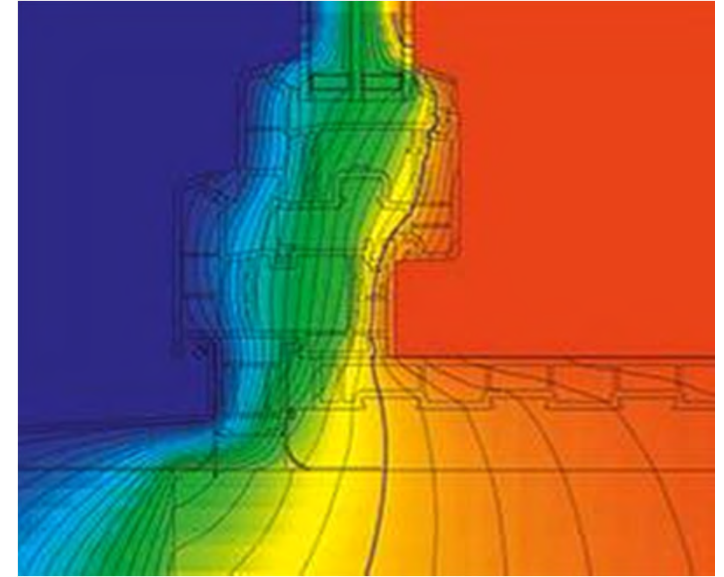


INSTALLATION

GENEO® – VARIETY OF INSTALLATION OPTIONS TO MINIMISE THERMAL BRIDGES



Isotherm 13 °C



Isotherm 13 °C



CHOICE OF COLOUR

MEET CUSTOMERS EXPECTATIONS



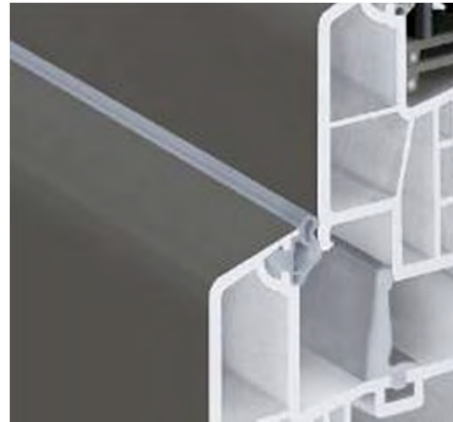
CHOICE OF COLOUR

MEET CUSTOMERS EXPECTATIONS



Choice of colour

- GENEEO® profiles laminated (timber surface, uni colour) or Acryl II coated
- Weather resistant
- Resistant against the environment
- Colour stable and easy to clean



Acryl II Coating

Over 150 RAL-Colours available to meet your customers expectations with GENEEO®.



Laminate

- Laminate foils in uni colour or timber appearance
- Structured or smooth surface available



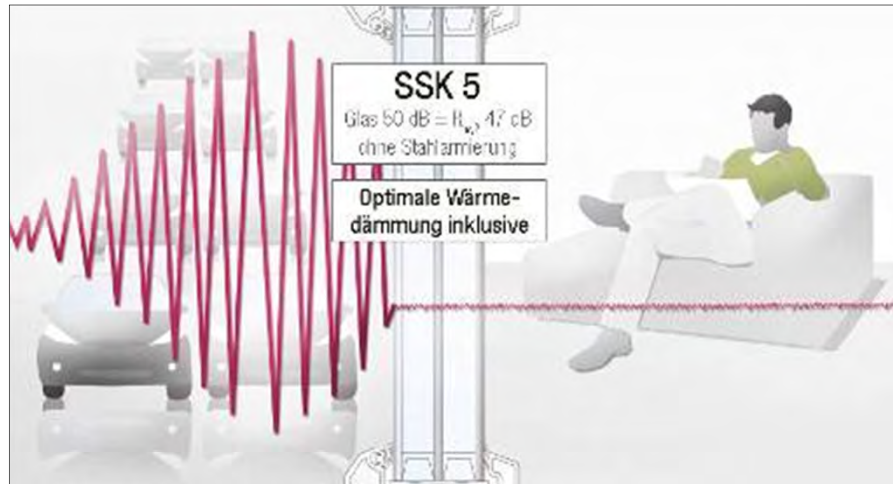
FOR HIGHEST COMFORT LEVELS

BEST SOUND INSULATION – ENERGY EFFICIENCY INCLUSIVE



FOR HIGHEST COMFORT LEVELS

BEST SOUND INSULATION – ENERGY EFFICIENCY INCLUSIVE



Noise is uncomfortable and over long periods hazardous to health. Project design and window specification should address sound insulation requirements.

Windows made from **GENEO®** Profiles offer

- Sound insulation of up to $R_{w,p} = 47$ dB (SSK 5), without the need for steel reinforcement
- Full benefit of the thermally enhanced profiles (Frame insulation U_f up to $0,85$ W/m²K)

Schallschutzklasse	Verkehrsdichte	Entfernung des Hauses zur Straßenmitte	Empfohlener Schalldämmwert* des Fensters	Glas	$R_{w,p}$
1	Wohnstraße 1500 Kfz/Tag	30-12 m	28-29 dB		
2	Wohnstraße 1500 Kfz/Tag	12-5 m	30-34 dB		
3	Bundesstraße 30 000 Kfz/Tag	150-80 m	35-39 dB		
4	Bundesstraße 30 000 Kfz/Tag	80-30 m	40-44 dB	40 dB	42 dB
5	Autobahn 50 000 Kfz/Tag	70-40 m	45-49 dB	50 dB	47 dB

Design for maximum silence and highest comfort for a better life!

* Sound level reduction through window



OPTIMUM SECURITY

EFFECTIVE BURGLAR RESISTANCE – ENERGY EFFICIENCY INCLUSIVE



OPTIMUM SECURITY

EFFECTIVE BURGLAR RESISTANCE – ENERGY EFFICIENCY INCLUSIVE



Well equipped against burglar

- Highest security through special keeps and additional security features
- High stability without steel reinforcement
- Successful test of Enhanced Security WK 2 at ift Rosenheim
- Energy efficiency not affected
- Enhanced Security WK3 achievable with GENEIO® and additional measures

Design for optimum security!

