

ALUMINIUM BUILDING SYSTEMS Nokian Profiilit Oy



BUILDING SYSTEMS

Nokian Profiles aluminium building systems are designed for northern conditions and sustainable development which is based on a wide experience. They are technically high level systems with a great quality.

Nokian Profiles aluminium building systems are versatile and they have a wide range of application. Different systems fit with each other. Systems could be supplemented with new or special profiles if needed. All systems are equipped with durable and tight EPDM-rubber gaskets. Thermal brakes of thermo insulated profiles are effective.

Aluminium

Aluminium is a strong, rustproof and recyclable material from which can be manufactured a profile in accordance with needs. Nokian profiles building profiles are usually made of AW-6060-T6-alloy, which has a yield strength $R_{p0.2} = 150\text{N/mm}^2$. Strong material makes structure to be resistant and durable.

Anodisation

Anodisation is a strong surface treatment of aluminium which meets requirements of industrial and ship building areas. Colour options EN000 and EK 22...29 and EK 40...44 are UV-, light- and weatherproof. Colours EK 30...34 are suitable only for internal use.

Powder coating

Nokian Profiles building systems are also available painted in a needed colour. Aluminium profiles are properly treated before painting to ensure adhesion and quality of painted surface. Aluminium does not rust, although surface is damaged or machined.

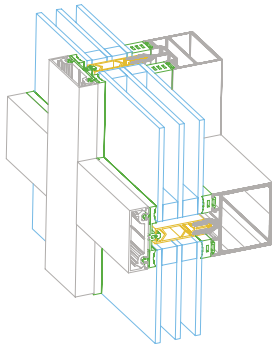




R54

Thermally insulated glass facades, glazed roofs and partition walls

- frame visible width 50 mm
- frame depth 8,5...200 mm
- 90 and 135 degree corners and curved walls
- cover profiles 15...2000 mm high, many special covers
- condensation grooves
- connection of frame profiles with lap joint or butt joint
- outern sealing also with more wide gasket
- openable sections with R72 Termo or N98si systems
- glazing from outern side
- glazing with 1K-, 2K and 3K-glass packages. Also blind sections with pocket filler profile.
- $U_w < 1,0 \text{ W/m}^2\text{K}$ is possible depending on a glass type and a structure size
- CE-marking in accordance with EN13830

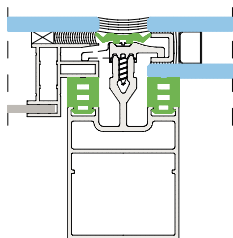


R54

R54SG

Glass facades without surface profiles

- 2- or 4-sided
- mechanical glass fixation
- glazing with 2K, 3K-glass packages and glazed blind sections

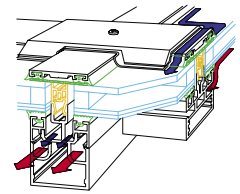


R54SG

R53 VERTEX

Thermally insulated glazed roofs: straight slopes, pyramids, barrel vault

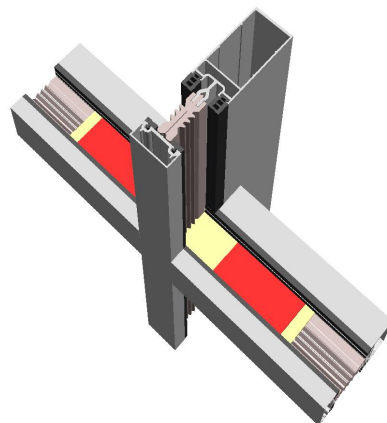
- frame visible width 50 mm
- frame depth 40...180 mm
- glazing list 5 mm high
- condensation grooves
- ventilation- and smoke extraction hatches
- glazing from outern side
- glazing with 2K- and 3K-glass packages



R53 Vertex

N50si

- U_f vertical frame 0,755 / horizontal frame 0,752 $\text{W/m}^2\text{K}$
- maximum glass thickness 54 mm
- lap joint or butt joint
- new effective thermobrakes
- wide outern gaskets with possibility of gasket lap joint
- two component EPDM-gaskets, which does not reduce a light opening
- grooves for condensation from internal surface of glass
- all connection holes are possible to make by punching
- all system screws are delta-coated
- separate profiles for supporting the glass
- two-level structure with dry and wet zones which are clearly separated
- frame visible width 50 mm
- effective PEX thermalbrakes, glass thickness up to 54 mm
- N50si SG structural glazing without surface profiles is possible



N50si

R72 TERMO

Thermally insulated doors, windows and glass walls

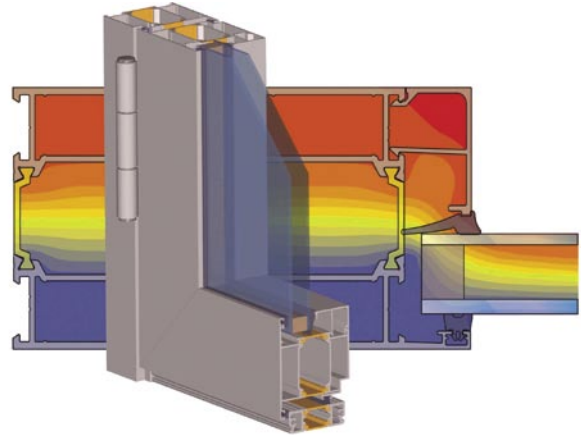
- excellent thermal insulation with the help of Termo+ additional insulation
- $U_w < 1,0 \text{ W/m}^2\text{K}$ is possible depending on a size and a type of a glass package
- gaskets don't reduce a light opening
- easy solutions from manufacturing point of view
- frame depth 72 mm
- same glazing and rebate gaskets in door and windows
- gaskets are continuing over the corners
- connections are possible by corner pressing or screws
- possibility of bended structures (bended profiles)
- compatible with other Nokian Profiles building systems

Doors

- single and pair door, outside and inside openable
- sliding doors
- easy wiring for electrical locks
- 2K- and 3K-glass package possibilities
- possible with butt hinges

Windows

- inside and outside openable windows
- terrace sliding windows
- SG-window
- pair window without middle impost
- 2K- and 3K-glass package possibilities
- possible with hidden hinges



R72 Termo

N98si HIGHLY INSULATED WINDOWS & DOORS

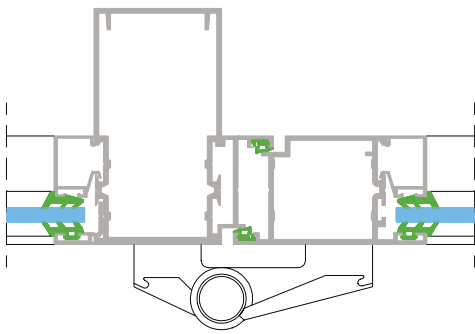
- one of world's deepest 1-leaf aluminium window and door system
- incredible thermo insulation
 U_f even $0,57 \text{ W/m}^2\text{K}$
- depending on a size and a type of a glass package
 $U_w < 0,6 \text{ W/m}^2\text{K}$ is possible
Maximum glass thickness 80 mm.
window U_w and door U_d $0,6 \text{ W/m}^2\text{K}$ is also possible
- gaskets don't reduce a light opening
- simple solutions for manufacturing
- wide range of solutions is covered by standard profiles
- same rebate and glazing gaskets are used in doors and windows
- gaskets are continuing over the corners
- possible also with butt hinges
- connections are possible by corner pressing or screws
- tight connections
- 2K- and 3K-glass package possibilities
- Connection pieces, gaskets, glazing lists and fittings are same as in R72 system

R72EI30 FIREPROOF WINDOWS & DOORS

- is certified for EI30 class
- single or 2-K glass package or filling part in accordance with certification. Dimensions depend on type
- possible with butt hinges
- depth and visible with are same as in R72 system
- can be used as internal or external door



90 and 135 degree corners



R12

R12

Uninsulated windows, doors and glass walls

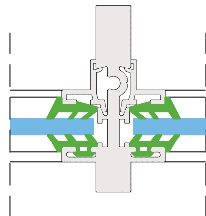
- frame visible width 37...150 mm
- frame depth 46 or 100 mm
- 90 and 135 degree corners
- frame and sash outer surfaces are in a same plane
- standard glazing or glass element in a center position
- glazing with 1K or 2K glass elements or with filling

Doors

- hinged or sliding door
- safety door
- with automatic mechanism or panic device
- possibility of espagnolette

Windows

- sidehung, Tilt & Turn, bottomhung, top hung and fixed windows



R12L

R12 LINEA

Thin-profile door, window and glass wall system

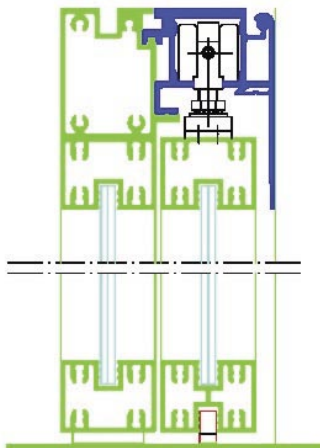
- frame visible width 24...36 mm
- frame depth 46 or 65 mm
- can be used as an extension of R12 structure
- glazing: glass 3...12 mm or filling 3...16 mm

Doors

- light and stylish profile doors

Windows

- hinged window or sliding hatch with upper or bottom rail



R28 Filia

R28 FILIA

Sliding doors and glass walls

- frame visible width 30 or 85 mm
- frame depth 40 mm
- glass thickness 5...10 mm

Doors

- sliding door with upper rail

ADDITIONAL INFORMATION

Principles of building systems are represented in product catalogues which can be downloaded from Nokian Profiilit Oy webpage. Ask technical support for more information and advices about different applications and special solutions.

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PROFILES

