



Aluminium Doors

Series **S2** e_ne_rg_y s_av_in_g | **S6** e_ne_rg_y s_av_in_g



**Security, energy saving, design:
3 solid arguments for the SYSTEM
SÄLZER®. Security is an existential
basic need, unfortunately it gets more
importance every day. Also the scarcity
of resources requires energy saving.**

**SÄLZER aluminium doors of the series
S2 energy saving and S6 energy saving fulfill
both: protection against forced entry,
bullets, explosions and also energy
saving through improved insulation.
Naturally SÄLZER products have
pleasing and aesthetic designs.**



Aluminium Doors

Security | Energy Saving | Design

Advantages at a Glance

- » Combinable with all products of the **SYSTEM SÄLZER®** (windows, facades, gates, guard houses, etc.).
- » Combined protection against forced entry, bullets and explosion.
- » For the exterior door: optimum thermal insulation.
- » Variety of designs.
- » Use of different locks and fittings possible.
- » Available as single element or as component of a facade.
- » Integration into any control or monitoring system.
- » High mechanical load and durability.
- » Extensive supplementary equipment, such as overhead door closers, door latch sensor etc.



Individual security concepts: aluminium door is available in different styles and security classes.



Double sliding door with side lights. Size: 4.405 x 2.530 m with 500 kg charge successfully tested. The whole door withstand the enormous blast wave of about 24 t pressure / sqm.

Certified Security:

Protection against Forced Entry | Bullets | Blast

Specific threat scenarios require simultaneous protection against forced entry, bullets and explosions. These combined requirements can be fulfilled by the SÄLZER aluminium doors.

The doors of the **serie S6 e_{nergy} s_{aving}**, for example, are **forced entry resistant in level RC4** and offer as well as **bullet resistance in level FB4-NS**. Furthermore the doors withstand a **pressure of 7.9 bar (GSA level 2)**.

The aluminum door with an **inward opening leaf** was also tested successfully with 100kg explosive (level GSA 2). The door was fully operable after the blast test.

In general the aluminum doors are available in two series:

- **SYSTEM SÄLZER® serie S2 e_{nergy} s_{aving} (serie S2es)** bullet resistant up to FB7-NS (rifle).
- **SYSTEM SÄLZER® serie S6 e_{nergy} s_{aving} (serie S6es)** bullet resistant up to FB4-NS (handgun).

Both series offer the same protection levels in **forced entry** and **blast resistance** (see page 7).

SÄLZER not only tests the doors in accordance with the European standards but also according to individual customer requirements.



In the forced entry tests in accordance with European standard DIN EN 1627-1630 electric tools are used from the resistant level RC4 (or WK4). The above photo shows the examiner of a renowned German test institute, trying to drill out the lock side of the SÄLZER aluminium door **serie S6es** by a power drill.

SYSTEM SÄLZER® conceptual Design: Sliding Door integrated in a Facade.





Different Variations

- Individuality from the Start

Despite the high security SÄLZER doors warrant, the architectural design is very attractive. The relevant security components are integrated inside the profiles. From the outside is no difference to non-secured doors evident.

Individuality

The SÄLZER aluminium profile system permits various constructions for individual requirements - whether modern or historical style. The doors can be designed elegant e.g. for the use in an embassy or private house as well as for tough applications such as barracks.

Creativity

Single or double door, sliding elements, with top and side lights, with transom, panels in glass or other materials, outward and inward opening. Applicable as interlocking door with special control system and available as escape door with hardware according to DIN EN 179 or DIN EN 1125.

Conception

Uniform appearance of the whole building with SÄLZER products. The doors can be built in facades and are available as single units. Windows and doors are compatible because of the same profile depth.

Surface Diversity

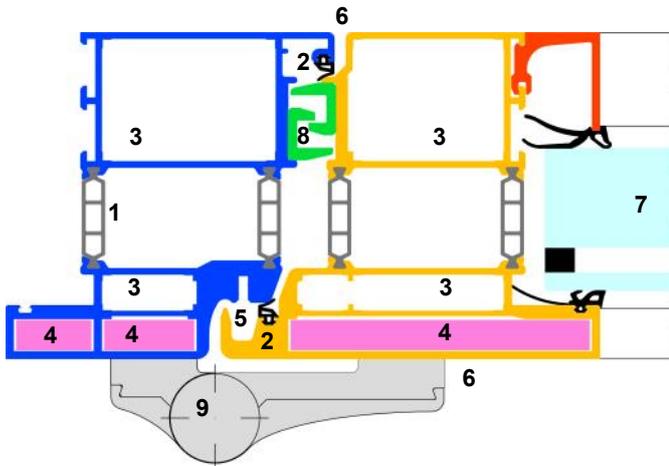
Anodized or powder coated, also clad with different materials such as stainless steel, stone, bronze, various and different types of wood.

Elegance

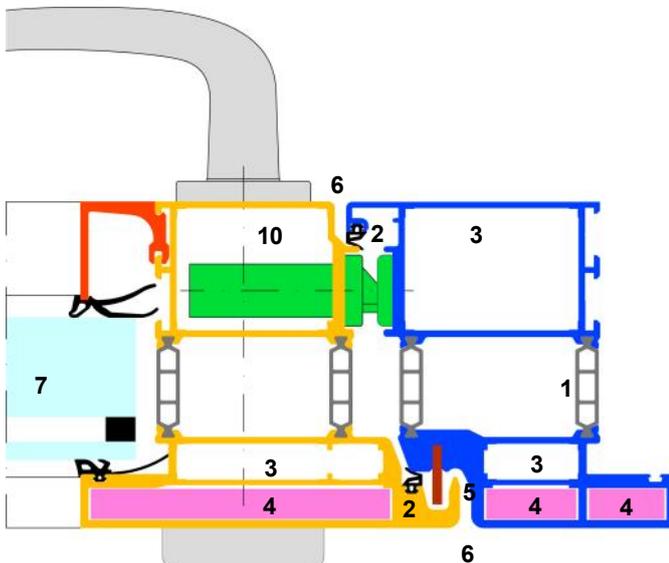
Narrow profile widths and flush door leaf and frame structures. Even with large glass thickness of 75 mm (**S6es**) or 97 mm (**S2es**) the glazing bead is flush inside.

Innovative Security Technologies:

provide Protection and ensure Stability and Durability



Horizontal section S6 energy Saving hinge side (outward opening door).



Horizontal section S6 energy Saving lock side (outward opening door).

Explanation: section details of profiles series S6 energy Saving hinge and lock side

- 1 Glass fibre reinforced POLYAMIDE-bridges, consisting of **3 chambers**, ensure stability and high thermal insulation.
- 2 **Two sets of gaskets** provide high air and water tightness.
- 3 Extruded and massive corner cleats and connectors (glued and screwed with 8mm bolts) in the profiles ensure stiff and torsion-resistant corner joints.
- 4 **Reinforcements** in the hollow areas of the profiles create the necessary variable forced entry, bullet and blast resistance.
- 5 **Patented door rebate profile** consisting of solid material, multiple angled, in addition reinforcement in stainless steel at the lock side, protect against forced entry, bullets and explosion.
- 6 Door frame and leaf are flush inside and outside.
- 7 Due to the high **profile depth (S6es: 75 mm, S2: 79 mm) triple glazings and bullet resistant glazings** can be integrated
- 8 Rotating and interlocking profiles secure the hinge side against forced entry and ensure stability.
- 9 3-way adjustable hinges which can bear door leaf weights up to **400 kg (floor pivots for weights up to 600 kg)**.
- 10 A large number of different lock systems can be integrated: mechanical, electro mechanical and electro motorized locks, single or multiple locking systems. Up to RC4 (WK4) also certified as glazed doors in accordance with panic locks according to DIN 179 and push bars according to DIN 1125.

Note: in accordance with DIN EN 1627-1630 the forced entry resistant door **must** be tested together with the locking system. An exchange of the lock is only allowed with the approval of the test institut!

Glazed forced entry resistant aluminium door, level RC4 (WK4), for escape routes

Glazing and high forced entry protection in level RC4 (WK4), in accordance with panic locks according to DIN 179 and push bars according to DIN 1125, were considered as incompatible long time. SÄLZER achieved a technical solution through a special door construction as well as with improved glazing. Penetration of the glazing with hand-drill and electric drill in the test (these tools can be used from level RC3) and a triggering of the locking devices is not possible.

Special edition model casement door **SECURON®**, tested and certified in tilted door position: forced entry resistant up to WK3 and explosion

The patented technology is achieved by special scissors and security interlocks. Tested as single and double door. Allows up to a size of 3.20 x 2.40 m (wxh). For more information, see the separate brochure **SECURON®**.

Characteristics		Series S2es	Series S6 es
Security			
Forced entry resistance	According to DIN EN 1627-1630 Glazing according to DIN EN 356 Tested inside and outside opening doors	Up to RC4* Up to P8B	Up to RC4* Up to P8B
Bullet resistance	According to DIN EN 1522-1523 Glazing according to DIN EN 1063 According to UL 752 Tested inside and outside opening doors	Up to FB7-NS* Up to BR7-NS Level 8	Up to FB4-NS* Up to BR4-NS -
Blast resistance	According to DIN EN 13123 and according to customer requirements, e.g. tested with 100 kg + 500 kg explosive. Glazing according to SÄLZER specification.	Up to EXR2* 0.84 bar -7.9 bar reflected pressure GSA level 2	Up to EXR2* 0.84 bar -7.9 bar reflected pressure GSA level 2
Performance Characteristics according to DIN EN 14351			
Resistance against wind load	According to DIN EN 12210	Depending on the type up to class C5	Depending on the type up to class C5
Water tightness	According to DIN EN 12208	Depending on the type classes 1A up to E750	Depending on the type classes 1A up to E750
Air permeability	According to DIN EN 12207	Depending on the type up to class 4	Depending on the type up to class 4
Impact resistance	According to DIN EN 13049	Depending on the type up to class 5	Depending on the type up to class 5
Thermal insulation	DIN EN ISO 10077-2; Values vary depending on the element size and glazing	$U_D = 1.5$ up to $1.8 \text{ W/m}^2\text{K}$	$U_D = 1.5$ and $1.8 \text{ W/m}^2\text{K}$
Sound insulation	According to DIN 5221 and to ISO 140-3; Values vary depending on the element size and glazing	According to ISO 140-3; up to R_w 38dB	According to ISO 140-3; up to R_w 38dB
Life cycle	Suitable for heavily frequented entrances and exits.	Details on request due to vary security components and weights.	Class 6: 200.000 cycles with 400 kg weight of the wing. Class 7: 500.000 cycles with 350 kg weight of the wing.
Sizes Glazing Hinges Lockings			
Profile depth		135 mm	110 mm
Glazing	Security class of the glazing is the same resistance level as the complex construction.	Glass thicknesses up to 97 mm , glazing bead flush. Higher thicknesses possible.	Glass thicknesses up to 75 mm , glazing bead flush. Higher thicknesses possible.
Glazing bead	There is no visible screwing of the glazing bead required due to the stable design. Also no glueing necessary (natural glazing rebate ventilation and water circuit) . Glazing beads are anchored pressure and impact resistant in the slot of the profiles.		
Height	Approved max. height of the wing: 3.00 m Recommended max. height of the wing: 2.50 m. Height e.g. depending on the wing weight and construction site (bimetal effect).		
Profile widths	Despite high security components small profile widths.		
Surface	Anodized or powder coated, also clad with different materials such as stainless steel, stone, bronze, various types of wood.		
Locks Fittings	All locks which are approved in the tested security class of the door. Mechanical, electro-mechanical or motorized locks, single or multiple locking. Doors for emergency exits tested according to DIN 179 and DIN 1125 (panic bar) up to RC4. Applicable as interlocking door with special control system possible. All tested and certified fittings can be installed in the respective security level.		
Hinges wing weights	Hinges for heavy weights. Easy operating despite heavy wing weights. Hinges bear wing weights up to 400 kg, up to 600 kg with floor pivot.		
Threshold, floor gasket	Threshold or adjustable floor gasket. Barrier free entrances and exits are possible.		
Installation	Installation in several building materials. Bullet resistance: a bullet resistant wall connection is tested and recommended.		
* higher requirements upon request.			

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SYSTEM SÄLZER®

Combined Protection

For more than 40 years SÄLZER has led the industry in the development and technology of forced entry, bullet, fire and blast resistant building components.

Each of our products is subject to a strict internal and external quality management.

Please ask for additional brochures about our further products: windows, facades, doors, gates, guard houses, partition walls, access control, barriers, bollards, accessory components etc.



Spectacular test videos:

[youtube.com/user/saelzersecurity](https://www.youtube.com/user/saelzersecurity)



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