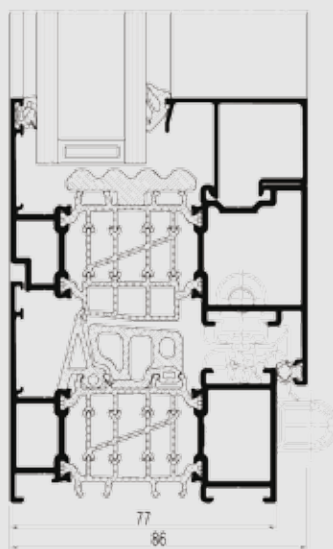
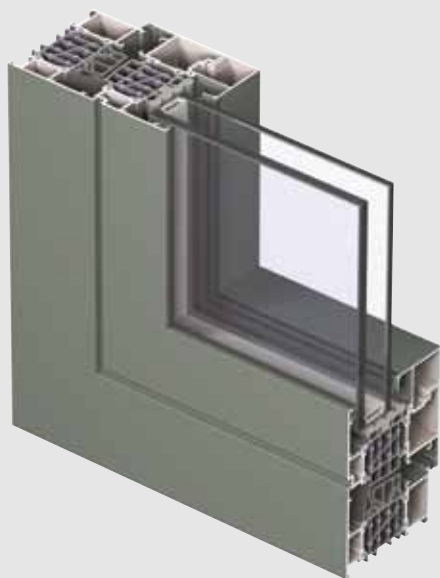


# CS 86-HI

Highly energy efficient

**R**  
REYNAERS  
aluminium



CS 86-HI is a multi-chamber system for windows and doors that combines aesthetic design, optimal stability and high thermal comfort. Due to the insulating skeleton strips, CS 86-HI achieves  $U_f$ -values down to  $1.2 \text{ W/m}^2\text{K}$ , making this a highly energy efficient system. Flexible expansion strips in the door vents ensure stability in all conditions.

The system provides inside opening windows and inside & outside opening flush doors (up to 3 metres). Furthermore, CS 86-HI doors offer different types of floor connections to meet acoustic, thermal and water requirements.

## TECHNICAL CHARACTERISTICS

|                                               |       |                                                                                                                                 |                                                                                     |
|-----------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                               |       |                                                |  |
| Style variants                                |       | <b>FUNCTIONAL</b>                                                                                                               | <b>HIDDEN VENT</b>                                                                  |
| Min. visible width inward opening window      | Frame | 51 mm                                                                                                                           | 70 mm                                                                               |
|                                               | Vent  | 35 mm                                                                                                                           | not visible                                                                         |
| Min. visible width inward opening flush door  | Frame | 68 mm                                                                                                                           | -                                                                                   |
|                                               | Vent  | 76 mm                                                                                                                           | -                                                                                   |
| Min. visible width outward opening flush door | Frame | 42 mm                                                                                                                           | -                                                                                   |
|                                               | Vent  | 102 mm                                                                                                                          | -                                                                                   |
| Min. visible width T-profile                  |       | 76 mm                                                                                                                           | 95 mm                                                                               |
| Overall system depth window                   | Frame | 77 mm                                                                                                                           | 77 mm                                                                               |
|                                               | Vent  | 86 mm                                                                                                                           | 79 mm                                                                               |
| Rebate height                                 |       | 25 mm                                                                                                                           | 17 mm                                                                               |
| Glass thickness                               |       | up to 62 mm                                                                                                                     | up to 46 mm                                                                         |
| Glazing method                                |       | dry glazing with EPDM or neutral silicones                                                                                      |                                                                                     |
| Thermal insulation                            |       | 41 mm fibreglass reinforced polyamide strips in skeleton structure or hollow chamber shape<br>32 mm (flexible) expansion strips |                                                                                     |



## PERFORMANCES

|                                                                                     |                                                                    |                                                                                             |               |                |                |                           |                |                |                |                |                  |                     |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------|----------------|----------------|---------------------------|----------------|----------------|----------------|----------------|------------------|---------------------|
|                                                                                     | ENERGY                                                             |                                                                                             |               |                |                |                           |                |                |                |                |                  |                     |
|  | Thermal insulation (1)<br>EN ISO 10077-2                           | Uf-value down to 1.20 W/m²K depending on the frame/vent combination and the glass thickness |               |                |                |                           |                |                |                |                |                  |                     |
|                                                                                     | COMFORT                                                            |                                                                                             |               |                |                |                           |                |                |                |                |                  |                     |
|  | Acoustic performance (2)<br>EN ISO 140-3; EN ISO 717-1             | Rw (C; Ctr) = 36 (-1; -4) dB / 44 (0; -2) dB, depending on glazing type                     |               |                |                |                           |                |                |                |                |                  |                     |
|  | Air tightness, max. test pressure (3)<br>EN 1026; EN 12207         | 1<br>(150 Pa)                                                                               |               | 2<br>(300 Pa)  |                | 3<br>(600 Pa)             |                | 4<br>(600 Pa)  |                |                |                  |                     |
|  | Water tightness (4)<br>EN 1027; EN 12208                           | 1A<br>(0 Pa)                                                                                | 2A<br>(50 Pa) | 3A<br>(100 Pa) | 4A<br>(150 Pa) | 5A<br>(200 Pa)            | 6A<br>(250 Pa) | 7A<br>(300 Pa) | 8A<br>(450 Pa) | 9A<br>(600 Pa) | E900<br>(900 Pa) |                     |
|  | Wind load resistance, max. test pressure (5)<br>EN 12211; EN 12210 | 1<br>(400 Pa)                                                                               |               | 2<br>(800 Pa)  |                | 3<br>(1200 Pa)            |                | 4<br>(1600 Pa) |                | 5<br>(2000 Pa) |                  | Exxx<br>(> 2000 Pa) |
|                                                                                     | Wind load resistance to frame deflection (5)<br>EN 12211; EN 12210 | A<br>(≤ 1/150)                                                                              |               |                |                | B<br>(≤ 1/200)            |                |                |                | C<br>(≤ 1/300) |                  |                     |
|                                                                                     | SAFETY                                                             |                                                                                             |               |                |                |                           |                |                |                |                |                  |                     |
|  | Burglar resistance (6)<br>NEN 5096 - ENV 1627                      | WK 1                                                                                        |               |                |                | WK 2<br>(windows & doors) |                |                |                | WK 3           |                  |                     |

- (1) The Uf-value measures the heat flow. The lower the Uf-value, the better the thermal insulation of the frame.
- (2) The sound reduction index (Rw) measures the capacity of the sound reduction performance of the frame.
- (3) The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
- (4) The water tightness testing involves applying a uniform water spray at increasing air pressure until water penetrates the window.
- (5) The wind load resistance is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A,B,C). The higher the number, the better the performance.
- (6) The burglar resistance is tested by statistical and dynamic loads, as well as by simulated attempts to break in using specified tools.