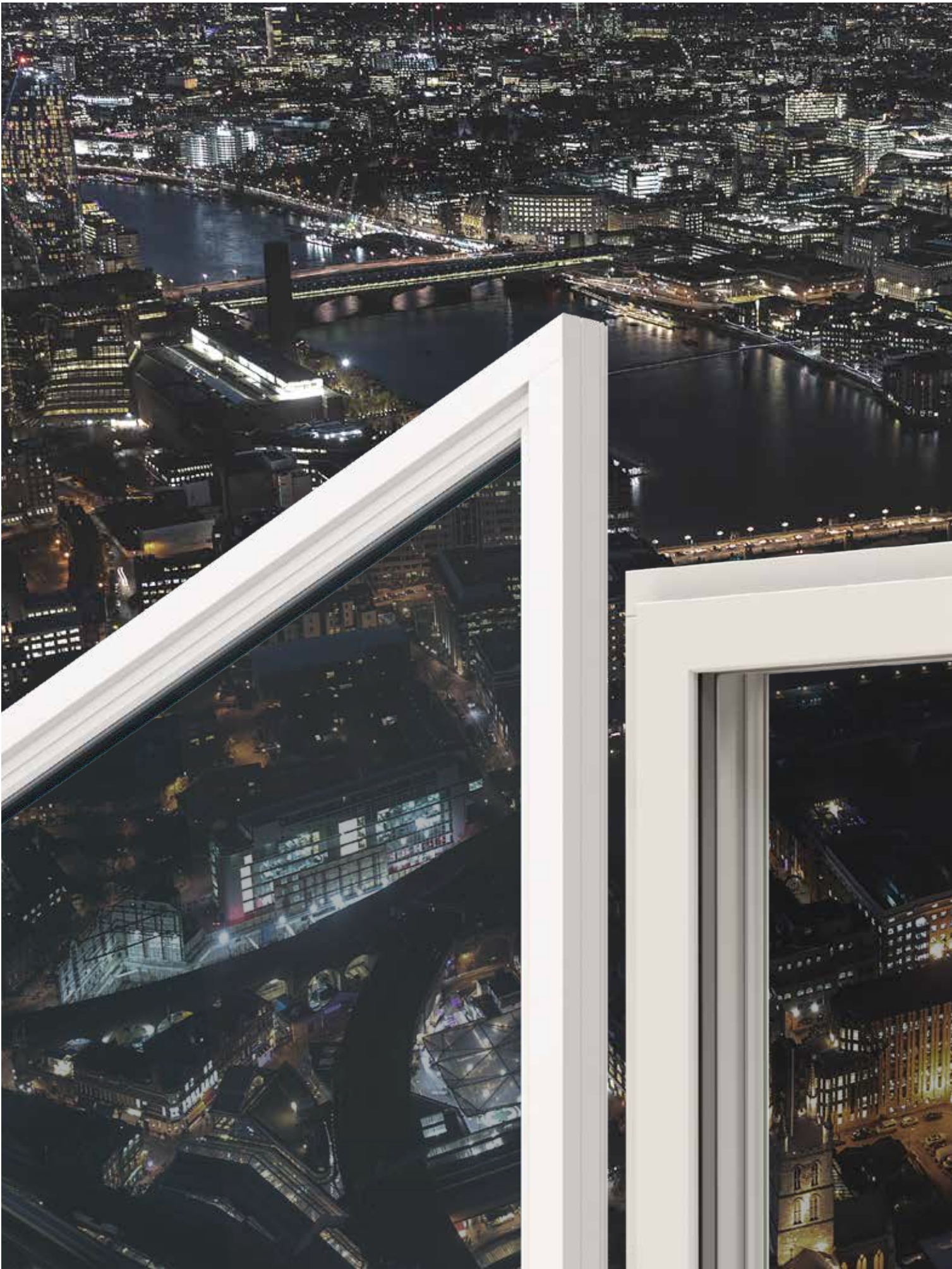




# NORDAN **SOUNDGUARD**

WINDOWS AND BALCONY DOORS







# NORDAN KVILLFORS SOUNDGUARD

**Future homes in the UK will almost certainly be built near noisy city infrastructures, at greater heights, and with clear sustainability goals. NorDan products make urban housing projects simpler, more efficient and more environmentally friendly.**



The NorDan Kvillfors series consists of unique windows and balcony doors adapted to the stringent requirements of building regulations in large cities. Increased urbanization and densification have created a new focus on plots for regeneration and new build that have traditionally been left untouched.

## The power of silence

Central areas along railroad tracks, traffic junctions, motorways and airports provide developers with unique opportunities to create urban living environments, but the challenges are many. Transportation infrastructure creates noise, and profitable projects require cost-effective windows that can be delivered in large volumes and can be easily maintained at the same time. With the Kvillfors series, noise reduction is one of the most important features. With acoustic values up to  $R_w$  60dB, the NorDan Kvillfors series is class-leading on noise reduction and ensures excellent comfort inside even when traffic is at full pace outside.

## Quality & flexibility

One of the strengths of the windows in the series is that they can be constructed according to the 2 + 1 principle. On the facade side, the almost maintenance-free aluminum-clad one-layer glass frame handles all the stresses that nature can throw at it. Against the interior space, there is a two-layer glass-glazed timber frame, providing heat insulation and high light absorption. The window is adapted to a wide range of wall thicknesses and designs with very good U-values. The design also makes it possible to equip the windows with built-in blinds for increased comfort.

## For sustainable buildings

Living in close quarters can be considered sustainable, but only if the windows are also designed with consideration to the environment throughout the production process. From raw materials to delivery, the windows are thoroughly documented and certified to strict standards. With environmental concerns becoming more and more important in the construction industry, it gives a good sense of security to know that NorDan windows are already one-step ahead.



# THE POWER OF SILENCE

**WINDOWS WITH NOISE  
REDUCTION UP TO RW 60 DB**

~~~~~  
When the children have finally fallen asleep, it can be nice to enjoy the silence without the risk of further disturbance. With windows and doors from the NorDan Kvillsfors series, you can turn off the noise from the environments outside and relax in the peaceful indoor atmosphere.







# NORDAN **SOUNDGUARD**

- High acoustic performing window system - up to Rw 60 dB
- Vacuum Impregnated Engineered Redwood
- FOX Fast Oxidising powder coated aluminium clad exterior
- Internally beaded
- High performance warm edge spacer
- Energy efficient glazing system
- Secured by Design accredited
- 30 minute fire rated system options available

# KT991 | **SIDE HUNG**

**INWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 44 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**





### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 400 mm        |
| Max Width   | 1 280 mm      |
| Min Height  | 480 mm        |
| Max Height  | 2 470 mm      |
| Weight      | Max: 70-90 kg |

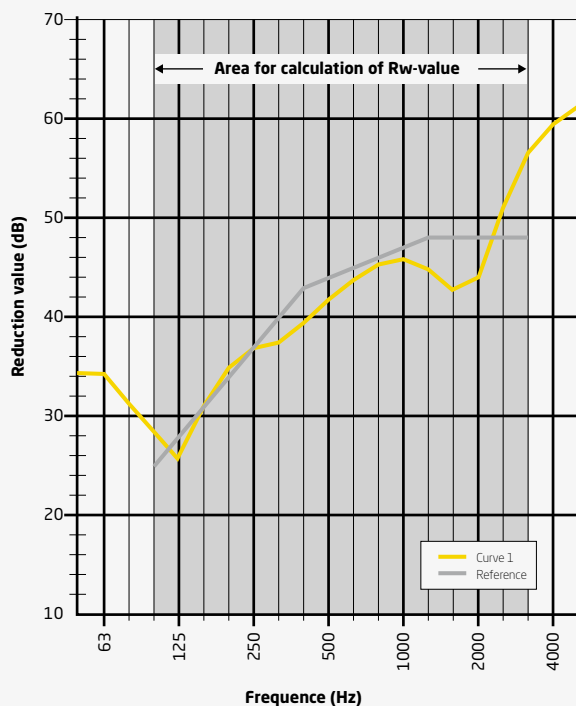
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,1 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 34 dB / Rw+Ctr 28 dB         |
| Max Sound reduction | Rw 44 dB / Rw+Ctr 40 dB         |
| Fire resistance     | E30/EI30                        |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Triple glazed

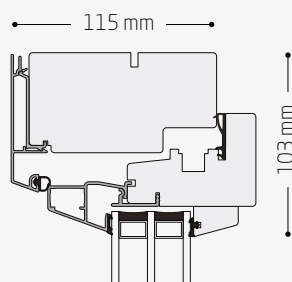
|                    |                          |
|--------------------|--------------------------|
| Glass              | T4-16 energy+ argon + VK |
| External material  | Aluminium                |
| Internal material  | Timber                   |
| Child safety       | Yes as an option         |
| Escape route       | Yes                      |
| Burglar resistance | Yes, as an option        |
| Ironmongery        | Galvanized bolt thread   |
| Blinds             | Yes, as an option        |
| Combination option | Yes                      |

### Acoustic test result

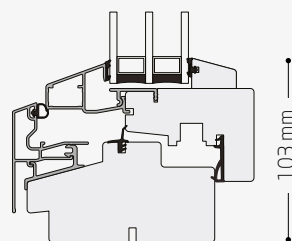


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 34,4       | 800            | 45,6       |
| 63             | 34,3       | 1000           | 45,9       |
| 80             | 31,3       | 1250           | 44,9       |
| 100            | 28,7       | 1600           | 42,9       |
| 125            | 25,8       | 2000           | 44,3       |
| 160            | 30,6       | 2500           | 51,2       |
| 200            | 34,8       | 3150           | 56,7       |
| 250            | 36,9       | 4000           | 59,4       |
| 315            | 37,7       | 5000           | 61,1       |
| 400            | 39,5       | <b>Rw</b>      | <b>44</b>  |
| 500            | 41,8       |                |            |
| 630            | 43,9       | (C; Ctr)       | (-1;-4)    |

### Position A, top



### Position B, bottom



# KT991 | **TILT AND TURN**

**INWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 44 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |                |
|-------------|----------------|
| Frame depth | 115 mm         |
| Min Width   | 400 mm         |
| Max Width   | 1 580 mm       |
| Min Height  | 480 mm         |
| Max Height  | 2 470 mm       |
| Weight      | Max: 80-100 kg |

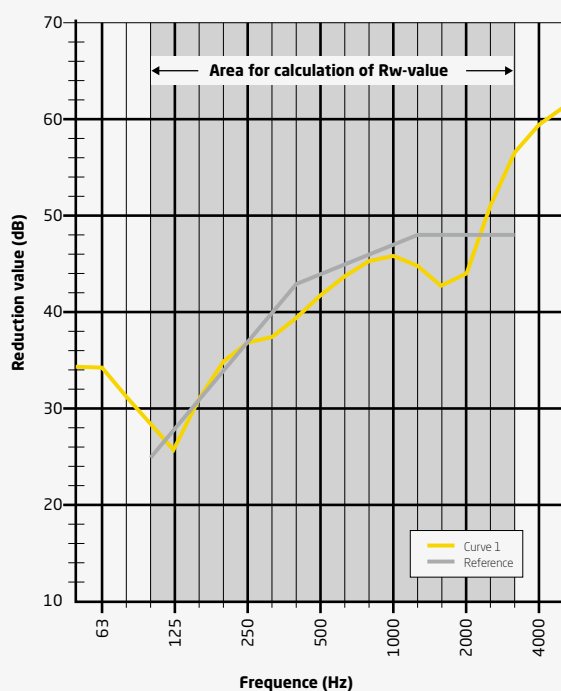
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,1 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 34 dB / Rw+Ctr 28 dB         |
| Max sound reduction | Rw 44 dB / Rw+Ctr 40 dB         |
| Fire resistance     | E30/EI30                        |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

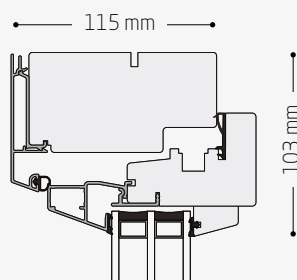
|                    |                           |
|--------------------|---------------------------|
| Glass              | T4-16 energy + argon + VK |
| External material  | Aluminium                 |
| Internal material  | Timber                    |
| Child safety       | Yes, as an option         |
| Escape route       | Yes                       |
| Burglar resistance | Yes, as an option         |
| Ironmongery        | Galvanized bolt thread    |
| Blinds             | Yes, as an option         |
| Combination option | Yes                       |

### Acoustic test result

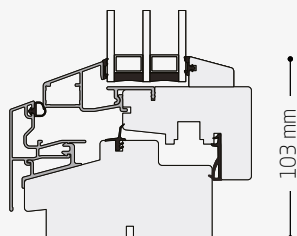


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 34,4       | 800            | 45,6       |
| 63             | 34,3       | 1000           | 45,9       |
| 80             | 31,3       | 1250           | 44,9       |
| 100            | 28,7       | 1600           | 42,9       |
| 125            | 25,8       | 2000           | 44,3       |
| 160            | 30,6       | 2500           | 51,2       |
| 200            | 34,8       | 3150           | 56,7       |
| 250            | 36,9       | 4000           | 59,4       |
| 315            | 37,7       | 5000           | 61,1       |
| 400            | 39,5       | <b>Rw</b>      | <b>44</b>  |
| 500            | 41,8       |                |            |
| 630            | 43,9       | (C; Ctr)       | (-1;-4)    |

### Position A, top



### Position B, bottom





# KT994 | **SIDE HUNG 2+1**

**INWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 49 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 400 mm        |
| Max Width   | 1 280 mm      |
| Min Height  | 480 mm        |
| Max Height  | 2 470 mm      |
| Weight      | Max: 70-90 kg |

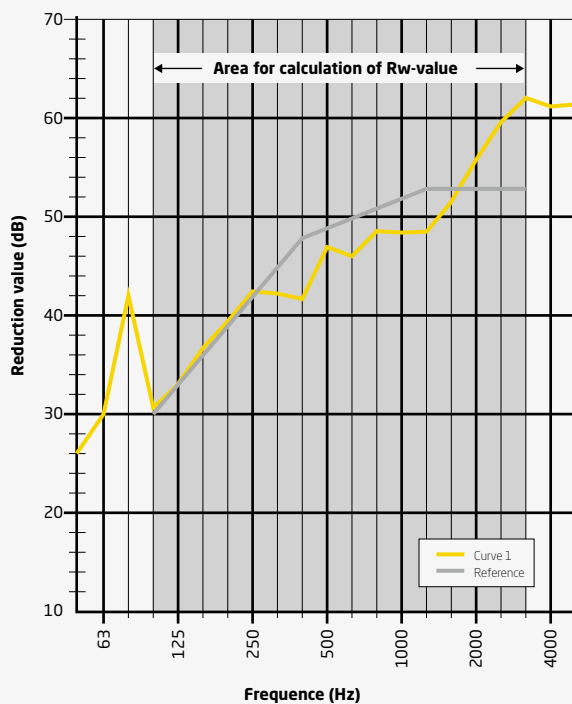
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,0 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 42 dB / Rw+Ctr 33 dB         |
| Max sound reduction | Rw 49 dB / Rw+Ctr 44 dB         |
| Fire resistance     | -                               |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

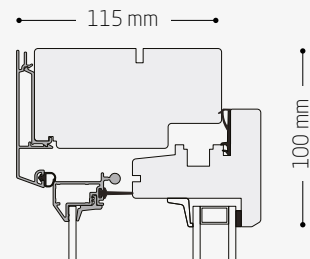
|                    |                                      |
|--------------------|--------------------------------------|
| Glass              | T4-16 energy + argon + VK 4 mm float |
| External material  | Aluminium                            |
| Internal material  | Timber                               |
| Child safety       | Yes, as an option                    |
| Escape route       | Yes                                  |
| Burglar resistance | Yes, as an option                    |
| Ironmongery        | Galvanized bolt thread               |
| Blinds             | Yes, as an option                    |

### Acoustic test result

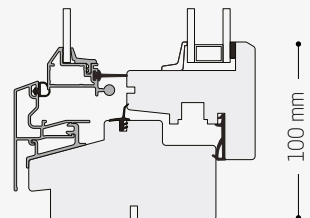


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 26,2       | 800            | 48,7       |
| 63             | 29,6       | 1000           | 48,6       |
| 80             | 42,2       | 1250           | 48,8       |
| 100            | 30,6       | 1600           | 51,7       |
| 125            | 33         | 2000           | 56,1       |
| 160            | 36,7       | 2500           | 59,8       |
| 200            | 39,5       | 3150           | 62,1       |
| 250            | 42,6       | 4000           | 61,1       |
| 315            | 42,2       | 5000           | 61,3       |
| 400            | 41,9       | <b>Rw</b>      | <b>49</b>  |
| 500            | 46,9       |                |            |
| 630            | 46,2       | (C; Ctr)       | (-1;-5)    |

### Position A, top



### Position B, bottom



# KT994 | **TILT AND TURN 2+1**

**INWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 49 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**





### Measure Aluclad

|             |                |
|-------------|----------------|
| Frame depth | 115 mm         |
| Min Width   | 400 mm         |
| Max Width   | 1 580 mm       |
| Min Height  | 480 mm         |
| Max Height  | 2 470 mm       |
| Weight      | Max: 80-100 kg |

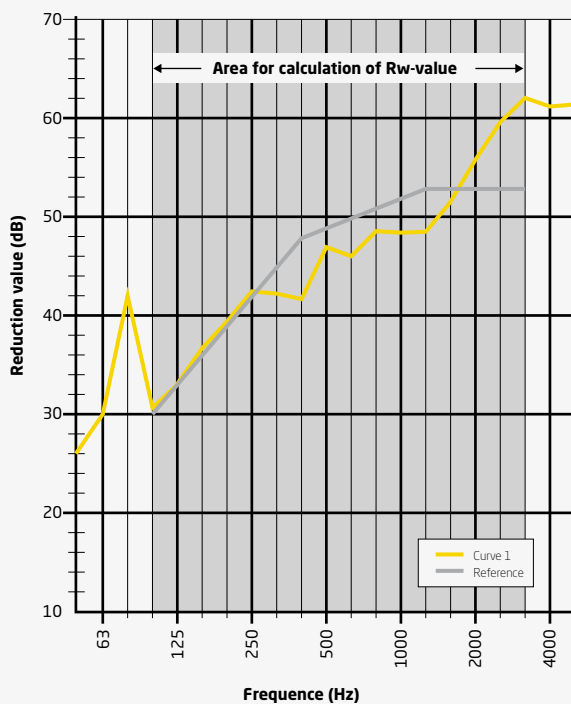
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,0 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 42 dB / Rw+Ctr 33 dB         |
| Max sound reduction | Rw 49 dB / Rw+Ctr 44 dB         |
| Fire resistance     | -                               |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

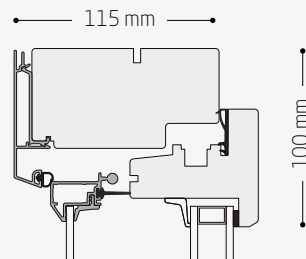
|                    |                                      |
|--------------------|--------------------------------------|
| Glass              | D4-16 energy + argon + VK 4 mm float |
| External material  | Aluminium                            |
| Internal material  | Timber                               |
| Child safety       | Yes, as an option                    |
| Escape route       | Yes                                  |
| Burglar resistance | Yes, as an option                    |
| Ironmongery        | Galvanized bolt thread               |
| Blinds             | Yes diaphragm blind                  |

### Acoustic test result

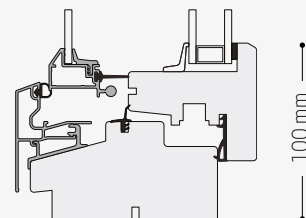


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 26,2       | 800            | 48,7       |
| 63             | 29,6       | 1000           | 48,6       |
| 80             | 42,2       | 1250           | 48,8       |
| 100            | 30,6       | 1600           | 51,7       |
| 125            | 33         | 2000           | 56,1       |
| 160            | 36,7       | 2500           | 59,8       |
| 200            | 39,5       | 3150           | 62,1       |
| 250            | 42,6       | 4000           | 61,1       |
| 315            | 42,2       | 5000           | 61,3       |
| 400            | 41,9       | <b>Rw</b>      | <b>49</b>  |
| 500            | 46,9       |                |            |
| 630            | 46,2       | (C; Ctr)       | (-1;-5)    |

### Position A, top



### Position B, bottom



# KT994 | **TILT AND TURN 3+1**

**INWARD OPENING**



**U-Value down to**  $0.7 \text{ Wm}^2/\text{K}$   
**Noise reduction**  $R_w 36 \text{ dB}$   
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



| Measure     | Aluclad        |
|-------------|----------------|
| Frame depth | 115 mm         |
| Min Width   | 400 mm         |
| Max Width   | 1 580 mm       |
| Min Height  | 480 mm         |
| Max Height  | 2 470 mm       |
| Weight      | Max: 80-100 kg |

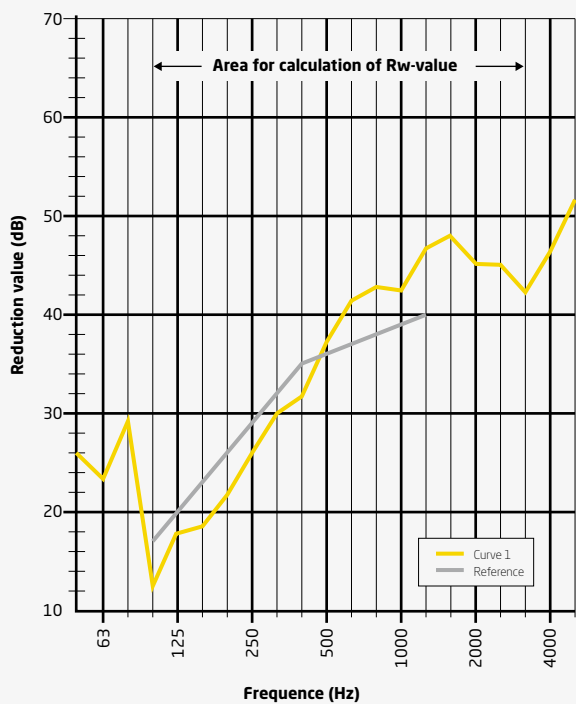
#### Product features

|                  |                                 |
|------------------|---------------------------------|
| Energy saving    | U-value: 0,9 Wm <sup>2</sup> /K |
| Cleaning         | Clean from the inside           |
| Sound reduction  | Rw 36 dB / Rw+Ctr 29 dB         |
| Fire resistance  | -                               |
| Watertightness   | Class 9A, according to EN 12208 |
| Deep Impregnated | Yes, according to BS 8417       |

#### Specification Double glazed

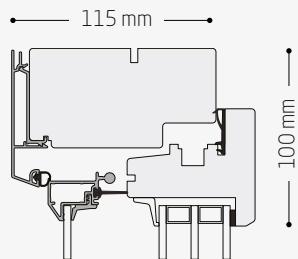
|                    |                                       |
|--------------------|---------------------------------------|
| Glass              | T4-16 energy + argon + VK 4 mm float  |
| External material  | Aluminium                             |
| Internal material  | Timber                                |
| Child safety       | Yes, as an option                     |
| Escape route       | Yes                                   |
| Burglar resistance | Yes, as an option                     |
| Ironmongery        | Lacquered adjustable tilt swivel gait |
| Blinds             | Yes, as an option                     |
| Combination option | Yes                                   |

#### Acoustic test result

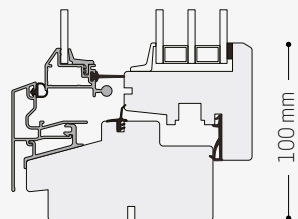


| Frequency (Hz) | Curve (dB) | Frequency (Hz)  | Curve (dB)     |
|----------------|------------|-----------------|----------------|
| 50             | 26,2       | 800             | 42,6           |
| 63             | 23,3       | 1000            | 42,2           |
| 80             | 29,1       | 1250            | 46,5           |
| 100            | 12,2       | 1600            | 47,8           |
| 125            | 17,8       | 2000            | 45             |
| 160            | 18,3       | 2500            | 44,9           |
| 200            | 21,4       | 3150            | 42,1           |
| 250            | 25,5       | 4000            | 45,9           |
| 315            | 29,6       | 5000            | 51,4           |
| 400            | 31,5       | <b>Rw</b>       | <b>36</b>      |
| 500            | 36,8       | <b>(C; Ctr)</b> | <b>(-2;-7)</b> |
| 630            | 41,2       |                 |                |

#### Position A, top



#### Position B, bottom





KT994 | **SIDE HUNG 1+2+1**

**INWARD OPENING**



**U-Value** 0.8 Wm<sup>2</sup>/K  
**Noise reduction up to**  $R_w$  60 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | Min: 250 mm   |
| Min Width   | 400 mm        |
| Max Width   | 1 280 mm      |
| Min Height  | 480 mm        |
| Max Height  | 2 470 mm      |
| Weight      | Max: 70-90 kg |

### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 0,8 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 57 dB / Rw+Ctr 45 dB         |
| Max sound reduction | Rw 60 dB / Rw+Ctr 54 dB         |
| Fire resistance     | Yes                             |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

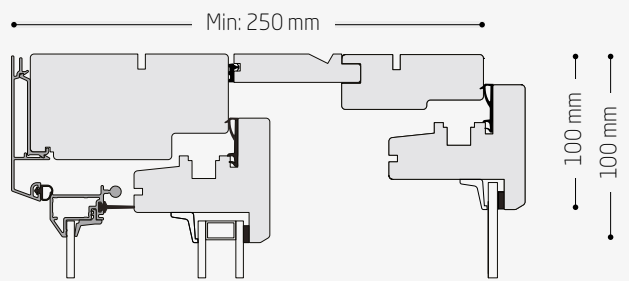
|                    |                                               |
|--------------------|-----------------------------------------------|
| Glass              | 6mm float + D4-16 energy argon VK + 4mm float |
| External material  | Aluminium                                     |
| Internal material  | Timber                                        |
| Child safety       | Yes                                           |
| Escape route       | Yes                                           |
| Burglar resistance | Yes, as an option                             |
| Ironmongery        | Galvanized bolt thread                        |
| Blinds             | Yes, as an option                             |

### Acoustic test result

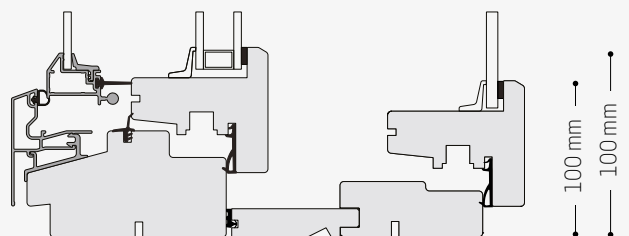


| Frequency (Hz) | Curve (dB) | Frequency (Hz)  | Curve (dB)     |
|----------------|------------|-----------------|----------------|
| 50             | 27,4       | 800             | 62,1           |
| 63             | 26,5       | 1000            | 61,3           |
| 80             | 37,5       | 1250            | 64,3           |
| 100            | 38,3       | 1600            | 64,4           |
| 125            | 43,7       | 2000            | 64,4           |
| 160            | 44,3       | 2500            | 63,5           |
| 200            | 47,9       | 3150            | 61,1           |
| 250            | 50,7       | 4000            | 53,3           |
| 315            | 53,8       | 5000            | 55,5           |
| 400            | 54,6       | <b>Rw</b>       | <b>60</b>      |
| 500            | 58,8       | <b>(C: Ctr)</b> | <b>(-2;-6)</b> |
| 630            | 60,2       |                 |                |

### Position A, top



### Position B, bottom



# KT995 | **FIXED FRAME**

**INWARD OPENING**



**U-Value down to** 0,8 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 44 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**





### Measure Aluclad

|             |             |
|-------------|-------------|
| Frame depth | 115 mm      |
| Min Width   | 380 mm      |
| Max Width   | 2 980 mm    |
| Min Height  | 380 mm      |
| Max Height  | 2 980 mm    |
| Weight      | Max: 200 kg |

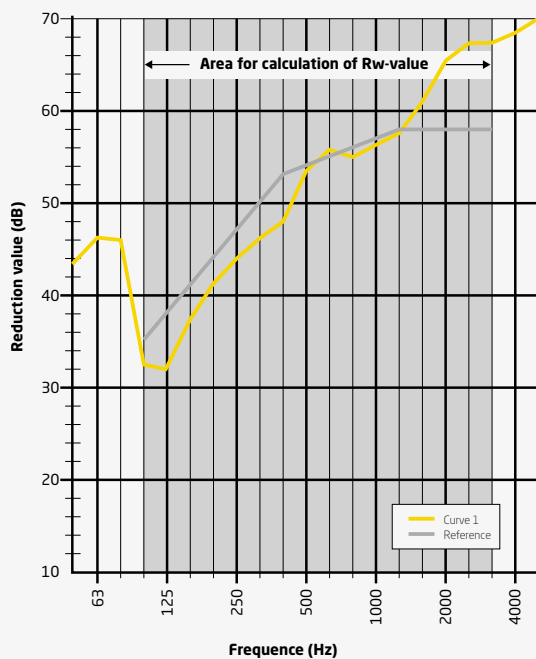
### Product features

|                     |                                    |
|---------------------|------------------------------------|
| Energy saving       | U-value: 1,0 Wm <sup>2</sup> /K    |
| Cleaning            | -                                  |
| Sound reduction     | Rw 32 dB / Rw+Ctr 26 dB            |
| Max sound reduction | Rw 44 dB / Rw+Ctr 40 dB            |
| Fire resistance     | E30/EI30/EI60                      |
| Watertightness      | Class E1200, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417          |

### Specification Double glazed

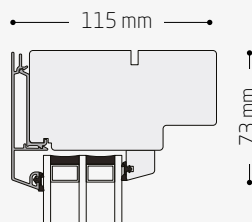
|                    |                           |
|--------------------|---------------------------|
| Glass              | T4-16 energy + argon + VK |
| External material  | Aluminium                 |
| Internal material  | Timber                    |
| Burglar resistance | Yes, as an option         |
| Blinds             | Yes, as an option         |
| Combination option | Yes                       |

### Acoustic test result

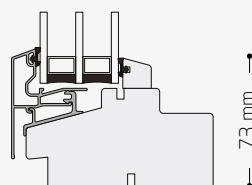


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 33,6       | 800            | 45         |
| 63             | 36,2       | 1000           | 46,1       |
| 80             | 36,2       | 1250           | 47,6       |
| 100            | 22,5       | 1600           | 50,7       |
| 125            | 22,3       | 2000           | 55         |
| 160            | 27,1       | 2500           | 57,2       |
| 200            | 31,0       | 3150           | 57         |
| 250            | 33,9       | 4000           | 58,4       |
| 315            | 36,2       | 5000           | 60         |
| 400            | 38,1       | <b>Rw</b>      | <b>44</b>  |
| 500            | 43,2       |                |            |
| 630            | 45,5       | (C; Ctr)       | (-2;-7)    |

### Position A, top



### Position B, bottom



# KT995 | **FREE FORM**

**INWARD OPENING**



**U-Value down to** 0,8 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 44 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |             |
|-------------|-------------|
| Frame depth | 115 mm      |
| Min Width   | 380 mm      |
| Max Width   | 2 980 mm    |
| Min Height  | 380 mm      |
| Max Height  | 2 980 mm    |
| Weight      | Max: 200 kg |

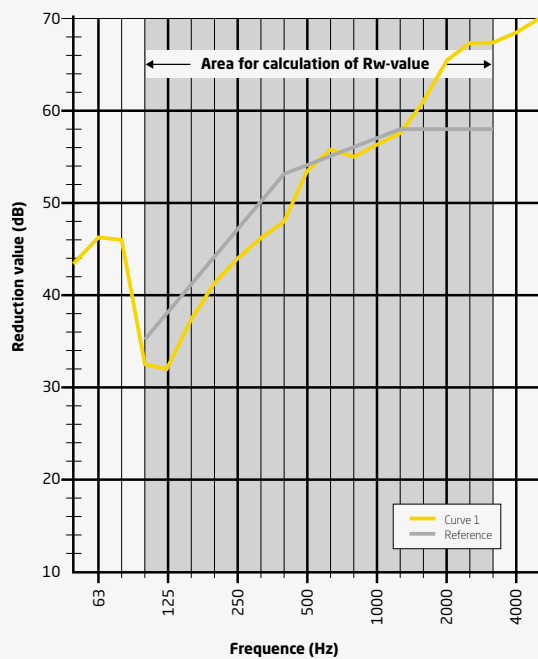
### Product features

|                     |                                    |
|---------------------|------------------------------------|
| Energy saving       | U-value: 1,0 Wm <sup>2</sup> /K    |
| Cleaning            | -                                  |
| Sound reduction     | Rw 32 dB / Rw+Ctr 26 dB            |
| Max sound reduction | Rw 44 dB / Rw+Ctr 40 dB            |
| Fire resistance     | E30/EI30/EI60                      |
| Watertightness      | Class E1200, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417          |

### Specification Double glazed

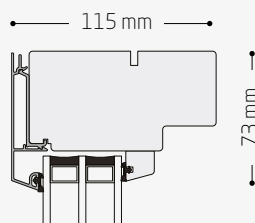
|                    |                           |
|--------------------|---------------------------|
| Glass              | T4-16 energy + argon + VK |
| External material  | Aluminium                 |
| Internal material  | Timber                    |
| Burglar resistance | Yes, as an option         |
| Blinds             | Yes, as an option         |
| Combination option | Yes                       |

### Acoustic test result

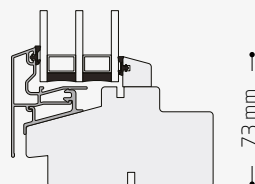


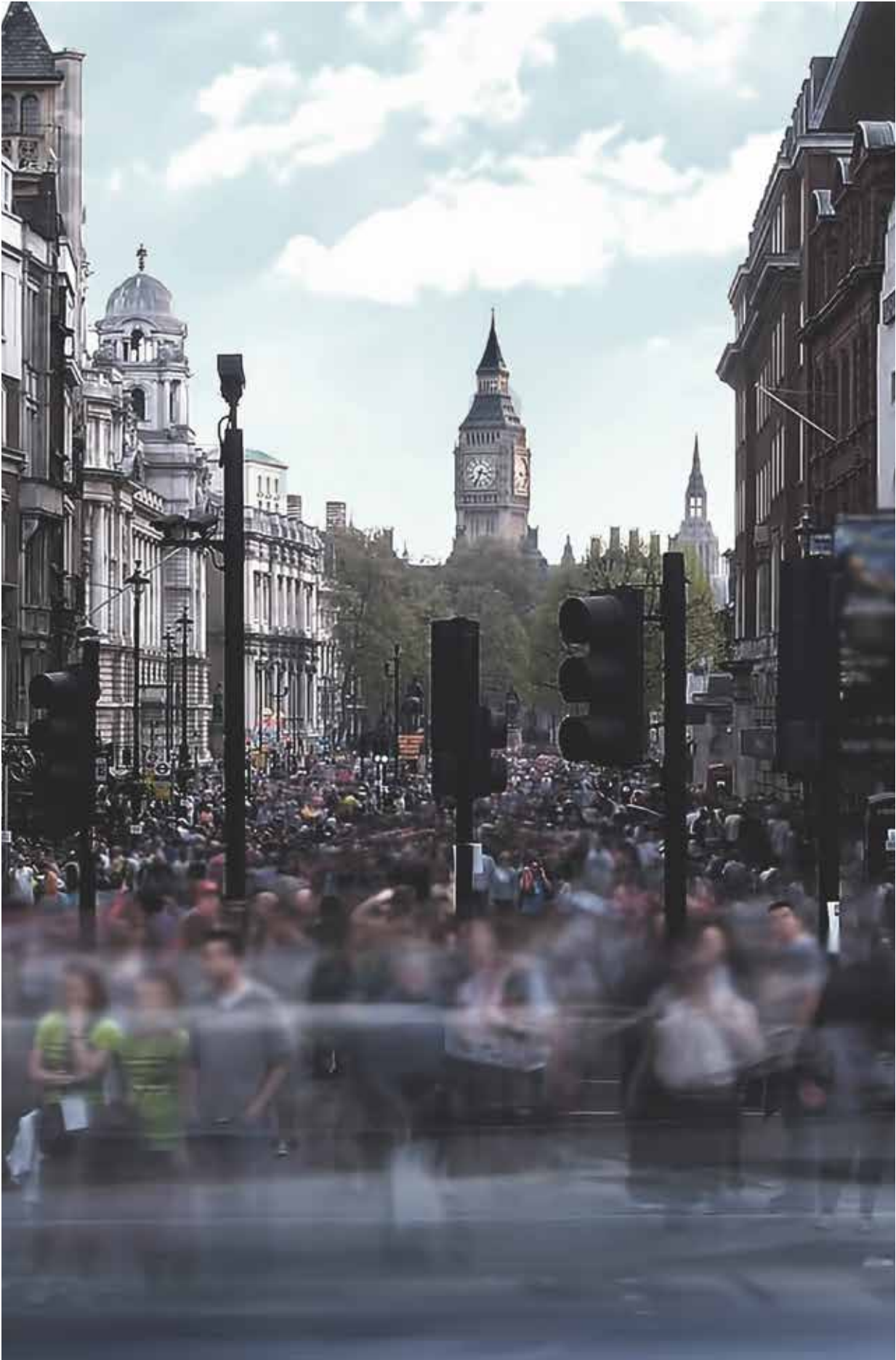
| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 33,6       | 800            | 45         |
| 63             | 36,2       | 1000           | 46,1       |
| 80             | 36,2       | 1250           | 47,6       |
| 100            | 22,5       | 1600           | 50,7       |
| 125            | 22,3       | 2000           | 55         |
| 160            | 27,1       | 2500           | 57,2       |
| 200            | 31,0       | 3150           | 57         |
| 250            | 33,9       | 4000           | 58,4       |
| 315            | 36,2       | 5000           | 60         |
| 400            | 38,1       | <b>Rw</b>      | <b>44</b>  |
| 500            | 43,2       |                |            |
| 630            | 45,5       | (C: Ctr)       | (-2;-7)    |

### Position A, top



### Position B, bottom











# KT991FD | **BALCONY DOOR**

**INWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** Rw 44 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 400 mm        |
| Max Width   | 1 080 mm      |
| Min Height  | 1 880 mm      |
| Max Height  | 2 470 mm      |
| Weight      | Max: 70-90 kg |

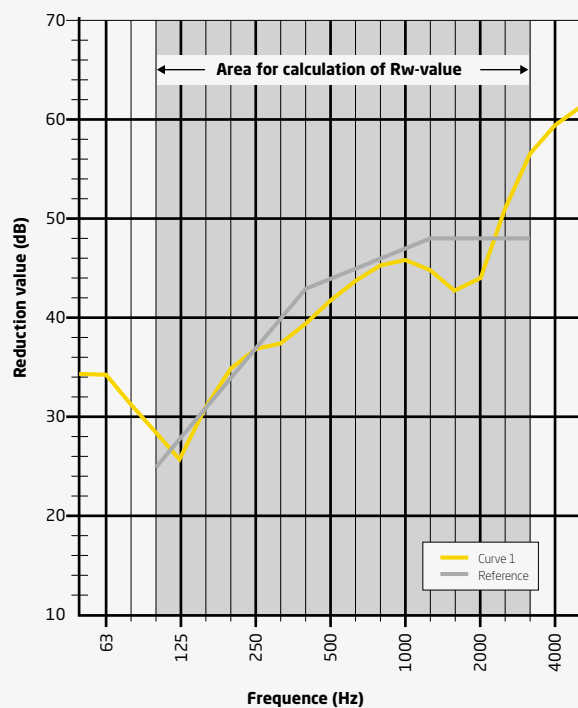
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,1 Wm <sup>2</sup> /K |
| Cleaning            | Clean from the inside           |
| Sound reduction     | Rw 34 dB / Rw+Ctr 27 dB         |
| Max Sound reduction | Rw 44 dB / Rw+Ctr 40 dB         |
| Fire resistance     | E30/EI30                        |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

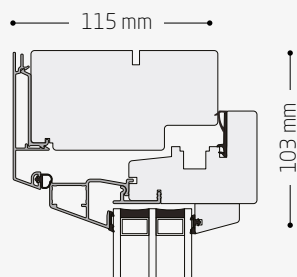
|                    |                                       |
|--------------------|---------------------------------------|
| Glass              | T4-16 energi + argon + VK             |
| External material  | Aluminium                             |
| Internal material  | Timber                                |
| Child safety       | Yes, as an option                     |
| Escape route       | Yes                                   |
| Burglar resistance | Yes, as an option                     |
| Ironmongery        | Lacquered adjustable tilt swivel gait |
| Blinds             | Yes, as an option                     |
| Combination option | Yes                                   |

### Acoustic test result

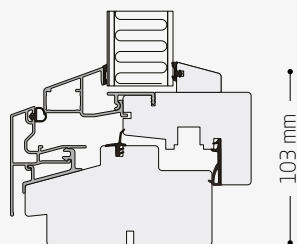


| Frequency (Hz) | Curve (dB) | Frequency (Hz)  | Curve (dB)     |
|----------------|------------|-----------------|----------------|
| 50             | 34,4       | 800             | 45,6           |
| 63             | 34,3       | 1000            | 45,9           |
| 80             | 31,3       | 1250            | 44,9           |
| 100            | 28,7       | 1600            | 42,9           |
| 125            | 25,8       | 2000            | 44,3           |
| 160            | 30,6       | 2500            | 51,2           |
| 200            | 34,8       | 3150            | 56,7           |
| 250            | 36,9       | 4000            | 59,4           |
| 315            | 37,7       | 5000            | 61,1           |
| 400            | 39,5       | <b>Rw</b>       | <b>44</b>      |
| 500            | 41,8       |                 |                |
| 630            | 43,9       | <b>(C: Ctr)</b> | <b>(-1;-4)</b> |

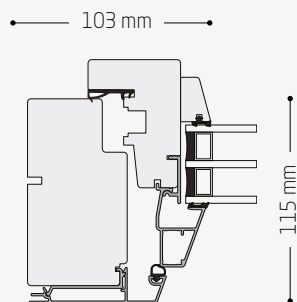
### Position A, top



### Position B, bottom



### Position C, side



## KT994FD | **BALCONY DOOR 2+1** INWARD OPENING



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** R<sub>w</sub> 49 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 400 mm        |
| Max Width   | 1 080 mm      |
| Min Height  | 1 880 mm      |
| Max Height  | 2 470 mm      |
| Weight      | Max: 70-90 kg |

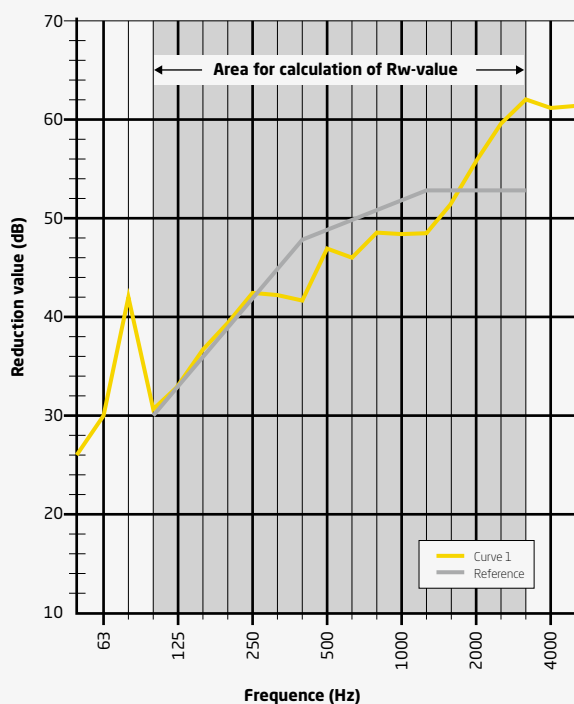
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,0 Wm <sup>2</sup> /K |
| Cleaning            | Cleaning from inside            |
| Sound reduction     | Rw 42 dB / Rw+Ctr 33 dB         |
| Max sound reduction | Rw 49 dB / Rw+Ctr 44 dB         |
| Fire resistance     | -                               |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

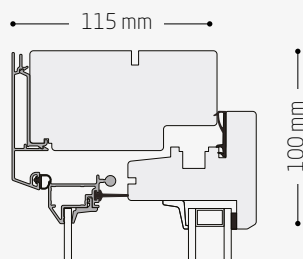
|                    |                                        |
|--------------------|----------------------------------------|
| Glass              | D4-16 energy + argon + VK + 4 mm float |
| External material  | Aluminium                              |
| Internal material  | Timber                                 |
| Child safety       | Yes, as an option                      |
| Escape route       | Yes                                    |
| Burglar resistance | Yes, as an option                      |
| Ironmongery        | Lacquered adjustable tilt swivel gait  |
| Blinds             | Yes, as an option                      |
| Combination option | Yes                                    |

### Acoustic test result

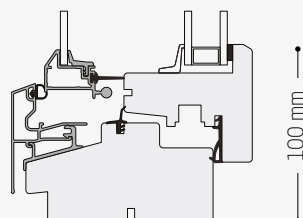


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 26,2       | 800            | 48,7       |
| 63             | 29,6       | 1000           | 48,6       |
| 80             | 42,2       | 1250           | 48,8       |
| 100            | 30,6       | 1600           | 51,7       |
| 125            | 33         | 2000           | 56,1       |
| 160            | 36,7       | 2500           | 59,8       |
| 200            | 39,5       | 3150           | 62,1       |
| 250            | 42,6       | 4000           | 61,1       |
| 315            | 42,2       | 5000           | 61,3       |
| 400            | 41,9       | <b>Rw</b>      | <b>49</b>  |
| 500            | 46,9       |                |            |
| 630            | 46,2       | (C; Ctr)       | (-1;-5)    |

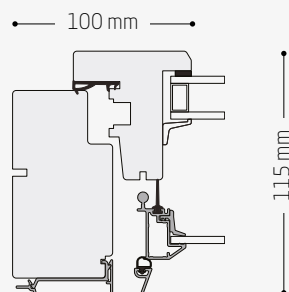
### Position A, top



### Position B, bottom



### Position C, side



# KT953FD | **BALCONY DOOR**

**OUTWARD OPENING**



**U-Value down to** 0,9 Wm<sup>2</sup>/K  
**Noise reduction up to** R<sub>w</sub> 43 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**





### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 680 mm        |
| Max Width   | 1 080 mm      |
| Min Height  | 1 880 mm      |
| Max Height  | 2 480 mm      |
| Weight      | Max: 70-90 kg |

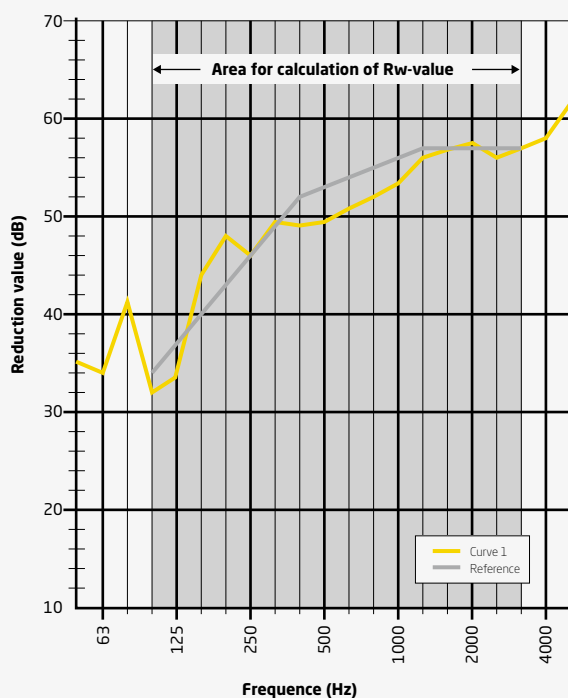
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,1 Wm <sup>2</sup> /K |
| Cleaning            | -                               |
| Sound reduction     | Rw 34 dB / Rw+Ctr 27 dB         |
| Max sound reduction | Rw 43 dB / Rw+Ctr 38 dB         |
| Fire resistance     | E30/EI30                        |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

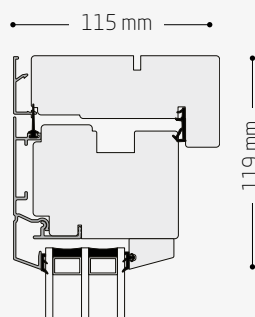
|                    |                                                             |
|--------------------|-------------------------------------------------------------|
| Glass              | T4-16 energy + argon + VK                                   |
| External material  | Aluminium                                                   |
| Internal material  | Timber                                                      |
| Child safety       | Yes, as an option                                           |
| Escape route       | Yes                                                         |
| Burglar resistance | Yes, as an option                                           |
| Ironmongery        | Zinc-plated tapering adjustable gaiters with rear edge ring |
| Blinds             | Yes, as an option                                           |
| Combination option | Yes                                                         |

### Acoustic test result

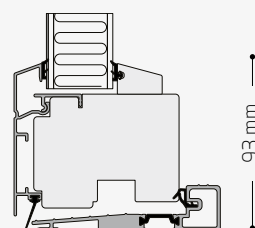


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 25,2       | 800            | 41,9       |
| 63             | 24,4       | 1000           | 43,6       |
| 80             | 31,2       | 1250           | 46,5       |
| 100            | 21,7       | 1600           | 46,9       |
| 125            | 23,9       | 2000           | 47,5       |
| 160            | 33,9       | 2500           | 46,5       |
| 200            | 37,8       | 3150           | 47,1       |
| 250            | 36,3       | 4000           | 48,4       |
| 315            | 39,6       | 5000           | 51,7       |
| 400            | 39         | <b>Rw</b>      | <b>43</b>  |
| 500            | 39,6       |                |            |
| 630            | 40,9       | (C: Ctr)       | (-1;-5)    |

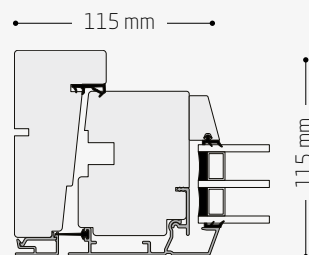
### Position A, top



### Position B, bottom



### Position C, side



## KT943FD | **BALCONY DOOR 2+1** OUTWARD OPENING



**U-Value down to** 0,9 W/m<sup>2</sup>/K  
**Noise reduction up to** Rw 45 dB  
**Internally beaded**  
**Deep Impregnated timber**  
**FoX Treated Aluminium**



### Measure Aluclad

|             |               |
|-------------|---------------|
| Frame depth | 115 mm        |
| Min Width   | 680 mm        |
| Max Width   | 1 080 mm      |
| Min Height  | 1 880 mm      |
| Max Height  | 2 480 mm      |
| Weight      | Max: 70-90 kg |

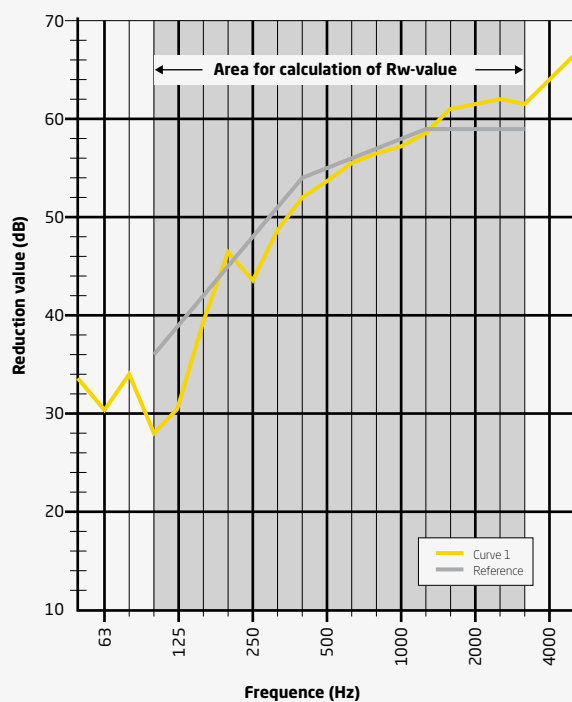
### Product features

|                     |                                 |
|---------------------|---------------------------------|
| Energy saving       | U-value: 1,1 Wm <sup>2</sup> /K |
| Cleaning            | -                               |
| Sound reduction     | Rw 38 dB / Rw+Ctr 29 dB         |
| Max sound reduction | Rw 45 dB / Rw+Ctr 35 dB         |
| Fire resistance     | -                               |
| Watertightness      | Class 9A, according to EN 12208 |
| Deep Impregnated    | Yes, according to BS 8417       |

### Specification Double glazed

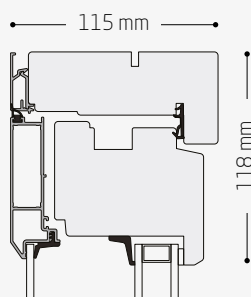
|                    |                                                             |
|--------------------|-------------------------------------------------------------|
| Glass              | D4-16 energy + argon + VK + 4 mm float                      |
| External material  | Aluminium                                                   |
| Internal material  | Timber                                                      |
| Child safety       | Yes, as an option                                           |
| Escape route       | Yes                                                         |
| Burglar resistance | Yes, as an option                                           |
| Ironmongery        | Zinc-plated tapering adjustable gaiters with rear edge ring |
| Blinds             | Yes, as an option                                           |
| Combination option | Yes                                                         |

### Acoustic test result

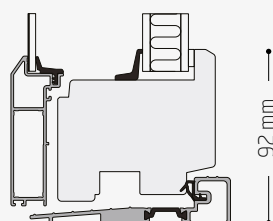


| Frequency (Hz) | Curve (dB) | Frequency (Hz) | Curve (dB) |
|----------------|------------|----------------|------------|
| 50             | 23,8       | 800            | 46,5       |
| 63             | 20,2       | 1000           | 47,3       |
| 80             | 24,5       | 1250           | 48,7       |
| 100            | 18,3       | 1600           | 51,0       |
| 125            | 20,5       | 2000           | 51,6       |
| 160            | 29,0       | 2500           | 52,3       |
| 200            | 36,5       | 3150           | 51,5       |
| 250            | 33,7       | 4000           | 54,1       |
| 315            | 38,7       | 5000           | 57,0       |
| 400            | 42,1       | <b>Rw</b>      | <b>35</b>  |
| 500            | 43,6       |                |            |
| 630            | 45,5       | (C; Ctr)       | (-2;-8)    |

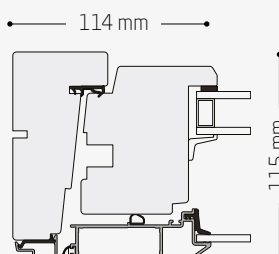
### Position A, top



### Position B, bottom

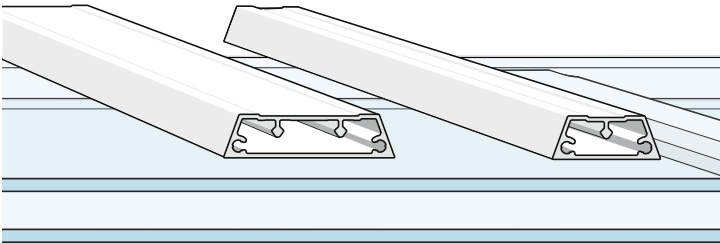


### Position C, side



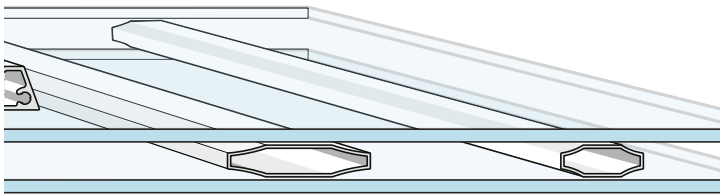
# ACCESSORIES

## TRANSOMS, MULLIONS & GLAZING BARS



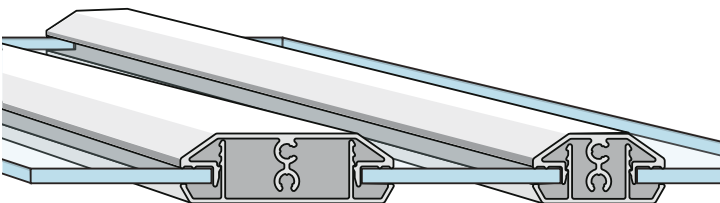
### Outsider glazingbars

The glazing bar is mounted on the outside of the glass to produce a multi-line appearance. It is fitted with a smart button system that makes it easy to remove the glazing bar when cleaning the outside of the glass. Outside glazing bars are mounted a little outside the glass to allow the water to drain between glass and glazing bar. The glazing bar is available in 34, 55 and 68mm width, and can be powder coated in any colour.



### Thermo glazing bar

The glazing bar is used for windows with insulating glass. You can choose between 26mm and 45mm width on the profiles. The glazing bar can be powder coated in the desired colour.

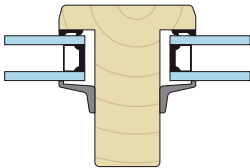


### Glass dividing glazing bar

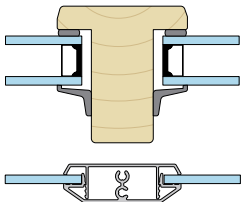
The glazing bar is used for coupled 2 + 1 windows. The glazing bar is mounted in the surface of the glass to produce the multi-line appearance. The glazing bar is available in 34 and 55mm width, and can be powder coated in any colour.

### Transom and mullion

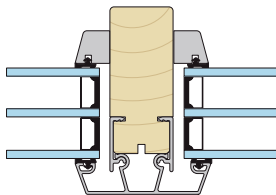
Accessory for inward opening coupled sash



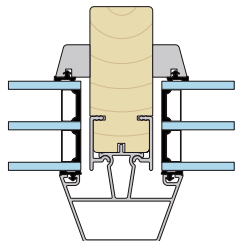
Accessory for outward opening coupled sash



Accessory for outward opening tripple glazed sash



Accessory for for inward opening tripple glazed sash

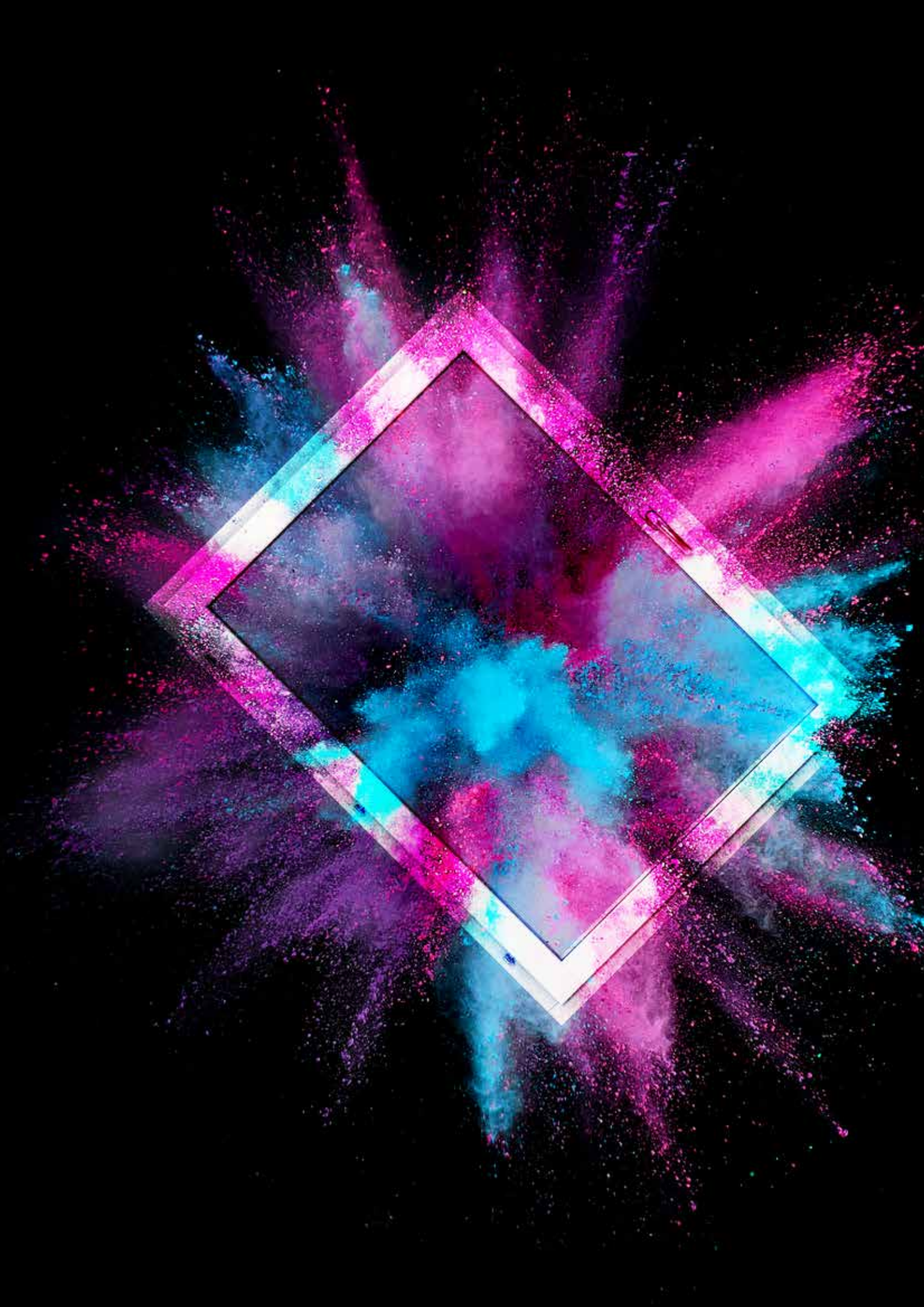


# BLINDS **FULL FLEXIBILITY**

We have a range of blinds that are perfect for your NorDan Kvillsfors products. For more information please contact your nearest NorDan office.







# SURFACE TREATMENT

**Deep, rich and long lasting, these are just some of the words that describe NorDan colours. From subtle earth tones to bold, eye-catching red and blue, and an almost endless variety of custom colours to choose from. NorDan's window surface stands out as much for its beauty as it does for its legendary durability.**



Choosing the perfect colour for your windows is not simply black and white. There are also shades of beige, brown, grey, red, green and blue. Aesthetically pleasing colours that give you lots of design options. Of course you can still choose from our standard colours. In NorDan it's all about choice.

## Popular colours

As an alternative to our standard white (S 0502-Y), we offer a wide range of other colours from a standardised palette. These colours are carefully selected based on the most popular choices both nationally and internationally. The colours are available both for timber and aluminium application:

## Special colours



RAL-colours - NorDan can supply most RAL colours in applied directly to the treated timber and polyester powder coated onto the aluminium surfaces at an additional cost and longer delivery times.



NCS-colours - NorDan can supply most NCS colours in paint for timber products and powder coating for the aluminium. However, because of the huge number of NCS colours that are available, cost and delivery times may vary.

The sidebar colour samples are for illustrative purposes only and may differ from the original colour. For best results, always use an approved colour swatch for accuracy.

Whilst every effort is made to verify and ensure the accuracy of the information in this brochure, NorDan UK Ltd does not take responsibility for any printing errors. The information should be used only as a guide and no purchasing decision should be made without consulting with your local NorDan office.

White Aluminium  
RAL 9006

White (Standard)  
NCS S 0502-Y

Jet Black  
RAL 9005

Basalt Grey  
RAL 7012

Window Grey  
RAL 7040

Red  
RAL 3011

Anthracite Grey  
RAL 7016

Silk Grey  
RAL 7044

Brilliant Blue  
RAL 5007

Grey Brown  
RAL 8019

Moss Green  
RAL 6005

Dusty Grey  
RAL 7037

Nut Brown  
RAL 8011

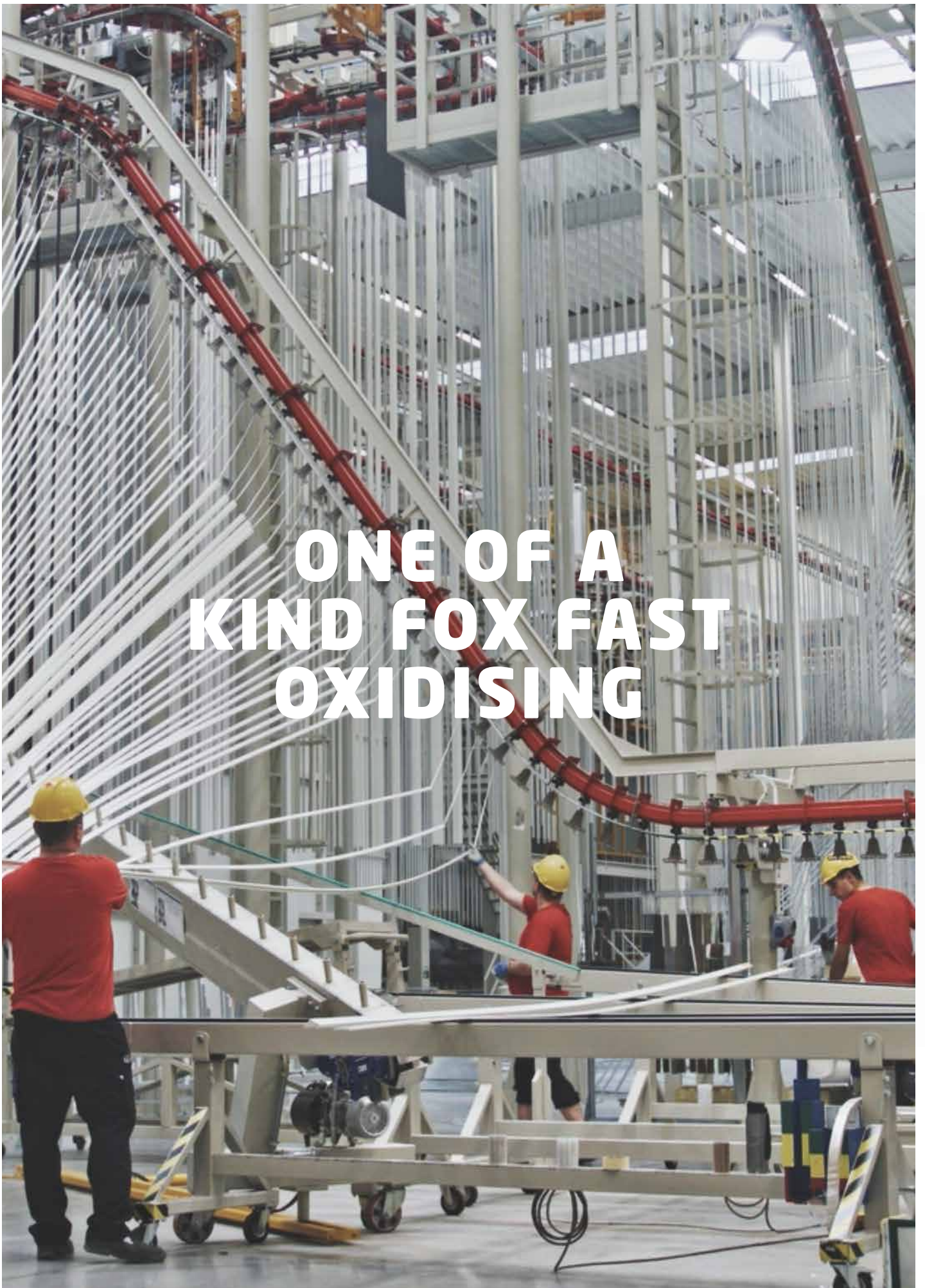
Oyster White  
RAL 1013

White  
NCS S 0500-N

Grey Aluminium  
RAL 9007



# ONE OF A KIND FOX FAST OXIDISING



## **Powder coating refers to a method of coating material, normally metals, with a paint in the form of powder that is then melted and cured onto the surface.**



Because there are no significant emissions from this process and it is relatively easy to recover and re-use overspray, this is the preferred way of providing an almost maintenance free finish to aluminium. Since powder coats do not stick well to the surface of aluminium, chrome (VI) pre-treatment has traditionally been used to give good adhesion of the powder layer to the aluminium. However, according to the EU's REACH regulations, from September 2017 the use of chrome (VI) will no longer be allowed in these processes.

To comply with this regulation it was decided that NorDan should take charge of their own powder coating quality and establish their own powder coating plant. This was to stand together with the door factory in Powodowo, but how should we pre-treat the aluminium? It was not an option to use chrome (VI) and for health and safety reasons this was not desirable either. The hunt was on to find the pre-treatment that fitted with NorDan's principles of technical excellence and environmental responsibility. We then came across an AC (alternating current) anodising pre-treatment technique that not only gave the ultimate adhesion for the powder layer, but was also extremely environmentally friendly, using no heavy metals in the process. In fact, the main substance used up in the process was pure water. Unfortunately, this process had never been used on profiles. After a small research project together with NTNU (Norway's Technical and Natural Sciences University in Trondheim), we confirmed that this was the type of pre-treatment we should be using

but nobody had ever made a plant that could use this technique. In the end we found a supplier that had developed a plant using an online anodising technique using DC (direct current) instead of AC for the anodising pre-treatment. While less energy efficient, the end result is the same, giving a powder coated finish which will withstand even the toughest marine environments (in our opinion this is the only pre-treatment type that is suitable for marine environments). In February 2016, NorDan took ownership of a state-of-the-art powder coating line with FOX (Fast OXidising) pre-treatment, only the 5th plant of this type in the world. By supplying all aluminium profiles with this level of quality of pre-treatment, NorDan has created a new standard for the Window manufacturing industry.

By use of electric current in an acidic aqueous solution, a very stable and non-separable oxide layer is produced onto Aluminium (principle of anodisation). During pre-anodisation a 3 to 8 µm thick oxide layer is produced in an aqueous sulfuric acid solution under controlled conditions. In contrast to decorative anodisation this layer is not sealed. The resulting quite sensitive open cellular surface structure is an excellent adhesion base for the powder or liquid paint coating, which has to be finished within 8 hours (differently according to GSB 12 to 24 h). This pre-treatment provides protection against filiform corrosion.







## ABOUT NORDAN

Innovation, performance, and quality never happen by chance. With a history going back over 90 years, there is no limit to the number of success stories that could be told about NorDan. But the most important story is the one that is unfolding on every construction site, every single day. Where high-quality Scandinavian windows and doors arrive safely and perform for years to come. That is the true and simple story of who we are, and what we provide.



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