FRINORM®

Frame extension elements for aluminium lifting sliding doors
Sound insulation

SOUND INSULATION 1 CHIPBOARD

Cover panel and surface	**Chipboard P5, E1, untreated, 10 mm** (PEFC-certified)
Thermal insulation	**Glass wool, 20 kg/m³, 80–200 mm**
Bonding	Water-resistant D3 (EN 204-D3)
Edge band	**Plywood, circumferential** Special edge bands can be inset according to your requirements
Edge milling	**All possible CNC edge profile work is performed on all sides according to your profile specifications**
Thicknesses	**Thicknesses from 100 to 220 mm can be produced** For thicknesses below 100 mm, see frame extension elements for wooden and wood-metal windows
Formats	**All formats from 500 × 95 mm to 3588 × 1294 mm can be produced**

Element thicknesses from 100 to 220 mm can be produced. For further U-value calculations, please contact our consultants.

Element thickness	**mm**	**100**	**110**	**120**	**130**	**140**	**150**	**160**
Cover panel thickness	**mm**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Thermal insulation thickness	mm	80	90	100	110	120	130	140
U-value	**W/m²K**	**0,395**	**0,347**	**0,315**	**0,289**	**0,267**	**0,248**	**0,232**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)							
Weight	kg/m²	16,1	16,3	16,5	16,6	16,8	17,0	17,1

Element thickness	**mm**	**170**	**180**	**190**	**200**	**210**	**220**
Cover panel thickness	**mm**	**10**	**10**	**10**	**10**	**10**	**10**
Thermal insulation thickness	mm	150	160	170	180	190	200
U-value	**W/m²K**	**0,217**	**0,205**	**0,193**	**0,183**	**0,174**	**0,166**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)						
Weight	kg/m²	17,3	17,5	17,6	17,8	18,0	18,1

SOUND INSULATION 2 CHIPBOARD

Cover panel and surface	**Chipboard P5, E1, untreated, 10 mm** (PEFC-certified)
Thermal insulation	**Glass wool, 20 kg/m³, 75–195 mm**
Sound insulation	**1 piece of heavy bitumen foil, 5 mm**
Bonding	Water-resistant D3 (EN 204-D3)
Edge band	**Plywood, circumferential** Special edge bands can be inset according to your requirements
Edge milling	**All possible CNC edge profile work is performed on all sides according to your profile specifications**
Thicknesses	**Thicknesses from 100 to 220 mm can be produced** For thicknesses below 100 mm, see frame extension elements for wooden and wood-metal windows
Formats	**All formats from 500 × 95 mm to 3588 × 1294 mm can be produced**

Element thicknesses from 100 to 220 mm can be produced. For further U-value calculations, please contact our consultants.

Element thickness	**mm**	**100**	**110**	**120**	**130**	**140**	**150**	**160**
Cover panel thickness	**mm**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Thermal insulation thickness	mm	75	85	95	105	115	125	135
Sound insulation thickness	mm	5	5	5	5	5	5	5
U-value	**W/m²K**	**0,406**	**0,363**	**0,329**	**0,301**	**0,277**	**0,257**	**0,239**
Airborne sound insulation	**46 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)							
Weight	kg/m²	26,1	26,2	26,4	26,6	26,7	26,9	27,0

Element thickness	**mm**	**170**	**180**	**190**	**200**	**210**	**220**
Cover panel thickness	**mm**	**10**	**10**	**10**	**10**	**10**	**10**
Thermal insulation thickness	mm	145	155	165	175	185	195
Sound insulation thickness	mm	5	5	5	5	5	5
U-value	**W/m²K**	**0,224**	**0,210**	**0,199**	**0,188**	**0,178**	**0,170**
Airborne sound insulation	**46 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)						
Weight	kg/m²	27,2	27,4	27,5	27,7	27,9	28,0

SOUND INSULATION 1 PLYWOOD

Cover panel and surface	**Plywood panel AW100, untreated, 12 mm** (PEFC-certified)
Thermal insulation	**Glass wool, 20 kg/m³, 76–196 mm**
Bonding	Water-resistant D3 (EN 204-D3)
Edge band	**Plywood, circumferential** Special edge bands can be inset according to your requirements
Edge milling	**All possible CNC edge profile work is performed on all sides according to your profile specifications**
Thicknesses	**Thicknesses from 100 to 220 mm can be produced** For thicknesses below 100 mm, see frame extension elements for wooden and wood-metal windows
Formats	**All formats from 500 × 95 mm to 3088 × 1294 mm can be produced**

Element thicknesses from 100 to 220 mm can be produced. For further U-value calculations, please contact our consultants.

Element thickness	**mm**	**100**	**110**	**120**	**130**	**140**	**150**	**160**
Cover panel thickness	**mm**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Thermal insulation thickness	mm	76	86	96	106	116	126	136
U-value	**W/m²K**	**0,396**	**0,356**	**0,323**	**0,296**	**0,273**	**0,253**	**0,236**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)							
Weight	kg/m²	13,3	13,4	13,6	13,8	13,9	14,1	14,3

Element thickness	**mm**	**170**	**180**	**190**	**200**	**210**	**220**
Cover panel thickness	**mm**	**12**	**12**	**12**	**12**	**12**	**12**
Thermal insulation thickness	mm	146	156	166	176	186	196
U-value	**W/m²K**	**0,221**	**0,208**	**0,196**	**0,186**	**0,176**	**0,168**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)						
Weight	kg/m²	14,4	14,6	14,8	15,0	15,1	15,3

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SOUND INSULATION 2 PLYWOOD

Cover panel and surface	**Plywood panel AW100, untreated, 12 mm** (PEFC-certified)
Thermal insulation	**Glass wool, 20 kg/m³, 71–191 mm**
Sound insulation	**1 piece of heavy bitumen foil, 5 mm**
Bonding	Water-resistant D3 (EN 204-D3)
Edge band	**Plywood, circumferential** Special edge bands can be inset according to your requirements
Edge milling	**All possible CNC edge profile work is performed on all sides according to your profile specifications**
Thicknesses	**Thicknesses from 100 to 220 mm can be produced** For thicknesses below 100 mm, see frame extension elements for wooden and wood-metal windows
Formats	**All formats from 500 × 95 mm to 3088 × 1294 mm can be produced**

Element thicknesses from 100 to 220 mm can be produced. For further U-value calculations, please contact our consultants.

Element thickness	**mm**	**100**	**110**	**120**	**130**	**140**	**150**	**160**
Cover panel thickness	**mm**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
Thermal insulation thickness	mm	71	81	91	101	111	121	131
Sound insulation thickness	mm	5	5	5	5	5	5	5
U-value	**W/m²K**	**0,418**	**0,373**	**0,337**	**0,308**	**0,283**	**0,262**	**0,243**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)							
Weight	kg/m²	23,2	23,4	23,5	23,7	23,9	24,0	24,2

Element thickness	**mm**	**170**	**180**	**190**	**200**	**210**	**220**
Cover panel thickness	**mm**	**12**	**12**	**12**	**12**	**12**	**12**
Thermal insulation thickness	mm	141	151	161	171	181	191
Sound insulation thickness	mm	5	5	5	5	5	5
U-value	**W/m²K**	**0,228**	**0,214**	**0,201**	**0,190**	**0,181**	**0,172**
Airborne sound insulation	**40 dB,** element thickness: 165 mm; test surface: 1.9 m² (download test reports)						
Weight	kg/m²	24,3	24,5	24,7	24,8	25,0	25,2

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