

EXEL WINDOW PROFILES



EXELENCE VALUE

We are an uncompromising supplier and expert of top quality composite solutions for the most demanding door and window manufacturers all over the world.

Composites are always a sum of multiple properties. Good thermal and mechanical properties make glassfibre profiles an ideal choice for windows.

- Low thermal conductivity improves the window U-value
- Excellent weatherability equals longer lifetime
- No need for thermal breaks means simple structure and easy assembly
- Very good chemical resistance and weatherability for the most demanding atmospheres
- Custom-made design and colors

SUPERIOR PRODUCT FEATURES

- High energy efficiency
- Non corrosive
- Class 1 paintable surface
- Low weight
- Composites enable slim profiles and thus enable maximum solar light and solar heating
- No cold air falls, so installation to floor level possible with no radiators needed

Composite is a sustainable long term solution.

SOME APPLICATIONS

- Window frames
- Facade components
- Thermal breaks for aluminium systems
- Stiffeners for PVC windows



EXEL OFFERING

- pultrusion profiles with traditional construction
- high performance optimized pultrusion profiles
- all different materials
 - > resins
 - » polyester
 - » polyurethane
 - » epoxy
 - > reinforcements
 - » glassfiber
 - » carbonfiber
 - » natural fiber
- machining options
 - > cutting
 - > drilling
 - > milling
- colour/coating options
 - > through coloured resin systems
 - > wet painting
 - > powder coating

TECHNICAL DATA SHEET

	UNIT	BASIC	SMOOTH	STIFF+ SMOOTH	STIFF	POLYURETHANE	FIRE	
General information	Structure		MUM	TUT	MUMT	MUM	MUM + FR	
	Resin type		UP	UP	UP	UP	UP	
	Reinforcement		GF	GF	GF	GF	GF	
	Color		White or black	White or black, colours available	White or black, colours available	White or black, colours available	Base colour natural yellow	Off white or black
	Surface finish		Plain mat texture	Fine mat texture	Fine mat texture	Plain mat texture	Plain	Plain
Physical Properties	Specific Gravity	g/cm3	1,9	2	1,9	2	2,1	2
	Fiber Weight Content	Weight-%	60	65	63	65	80	40
	Fiber Volume Content	Volume-%	40	45	43	45	63	40
Mechanical properties	Bending strength (lengthwise)	MPa	170	200	250	250	400	170
	E-modulus (lengthwise)	GPa	17	20	25	27	45	17
	Bending strength (crosswise)	MPa	70	30	50	70	70	50
	E-modulus (crosswise)	GPa	5	5	7	7	8	5
Application specific properties	Linear Thermal expansion	10 ⁻⁶ K ⁻¹	6	6	6	6	8	6
	Thermal conductivity	W/m ² K	0,3	0,3	0,3	0,3	0,4	0,5

STRUCTURES:

U= unidirectional fibres

M= mat

T= tissue

Data included in tables are for guiding and material choice. Final specifications can be finetuned for particular applications. Data is believed to be correct to the best of our knowledge at the date of printing. Basic laminates in accordance with ISO13706 E17 and E23 are available.