

# EXEL DOOR 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 door sills and leaf profiles.

- Low thermal conductivity improves the door U-value
- No condensation water on door sill
- Excellent abrasion resistance 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
- Low thermal coefficient of heat expansion means stable doors in changing temperatures
- 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

Door sills for exterior doors and sliding door, door leaf profiles, stiffeners, thermal breaks

## 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	DOOR SILLS			DOOR FRAMES			
		MONOLITHIC	HOLLOW	PU	BASIC	STIFF	FIRE	
General information	Structure		UV	MUM	U	MUM	MUM	MUM + FR
	Resin type		UP	UP	PU	UP	UP	UP
	Reinforcement		GF	GF	GF	GF	GF	GF
	Color		Colours available	Colours available	Base colour natural yellow	White or black	White or black, colours available	Off white or black
	Surface finish		Plain	Plain mat texture	Plain	Plain mat texture	Plain mat texture	Plain
Physical Properties	Specific Gravity	g/cm <sup>3</sup>	1,85	1,85	2,1	1,9	2	2
	Fiber Weight Content	Weight-%	75	65	80	60	65	40
Mechanical properties	Fiber Volume Content	Volume-%	55	44	63	40	45	40
	Bending strenght (lengthwise)	MPa	300	250	400	170	250	170
	E-modulus (lengthwise)	GPa	30	25	45	17	27	17
	Bending strenght (crosswise)	MPa	20	50	20	70	70	50
	E-modulus (crosswise)	GPa	5	7	8	5	7	5
Application specific properties	Thermal elongation	10 <sup>-6</sup> K <sup>-1</sup>	6	6	8	6	6	6
	Thermal conductivity	W/m <sup>2</sup> K	0,3	0,3	0,4	0,3	0,3	0,5

### STRUCTURES:

**U=** unidirectional fibres  
**V=** veil  
**M=** mat

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.