EXEL DOOR PROFILES

EXELENT 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 and ideals 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

### General information

<table>
<thead>
<tr>
<th>Structure</th>
<th>MONOLITHIC</th>
<th>HOLLOW</th>
<th>PU</th>
<th>BASIC</th>
<th>STIFF</th>
<th>FIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin type</td>
<td>UP</td>
<td>UP</td>
<td>PU</td>
<td>UP</td>
<td>UP</td>
<td>UP</td>
</tr>
<tr>
<td>Reinforcement</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
<td>GF</td>
</tr>
<tr>
<td>Color</td>
<td>Colours available</td>
<td>Colours available</td>
<td>Base colour natural yellow</td>
<td>White or black</td>
<td>White or black, colours available</td>
<td>Off white or black</td>
</tr>
<tr>
<td>Surface finish</td>
<td>Plain</td>
<td>Plain mat texture</td>
<td>Plain</td>
<td>Plain mat texture</td>
<td>Plain mat texture</td>
<td>Plain</td>
</tr>
</tbody>
</table>

### Physical Properties

| Specific Gravity | 1,85 | 1,85 | 2,1 | 1,9 | 2 | 2 |
| Fiber Weight Content | 75 | 65 | 80 | 60 | 65 | 40 |

### Mechanical Properties

| Fiber Volume Content | 55 | 44 | 63 | 40 | 45 | 40 |
| E-modulus (lenghtwise) | 30 | 25 | 45 | 17 | 27 | 17 |
| Bending strenght (lenghtwise) | 300 | 250 | 400 | 170 | 250 | 170 |
| Bending strenght (crosswise) | 20 | 50 | 20 | 70 | 70 | 50 |
| E-modulus (crosswise) | 5 | 7 | 8 | 5 | 7 | 5 |

### Application specific properties

| Thermal elongation | 6*10^-6 K^-1 | 6 | 6 | 8 | 6 | 6 |
| Thermal conductivity | 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.