

# TECHNICAL DATA SHEET

## Witcom PA66/6G/3L3, based on Polyamide 66 (PA66)

30% glass fibres, 15% PTFE/Si

| Properties | Test methods | Units | PA66/6G/3L3 |
|------------|--------------|-------|-------------|
|------------|--------------|-------|-------------|

### Physical properties

|                                        |          |                   |            |
|----------------------------------------|----------|-------------------|------------|
| Specific gravity                       | ISO 1183 | g/cm <sup>3</sup> | 1,47       |
| Water absorption at saturation, 23 °C  | ISO 62   | %                 | 4,7        |
| Humidity absorption, 23 °C/50 % r.h.   | ISO 62   | %                 | 1,4        |
| Mould shrinkage (flow direction, 3 mm) | ISO 2577 | %                 | 0,35 - 0,5 |

### Mechanical properties

|                                 |             |                   |       |
|---------------------------------|-------------|-------------------|-------|
| Tensile strength (max.)         | ISO 527     | MPa               | 165   |
| Elongation at break             | ISO 527     | %                 | 2 - 4 |
| Flexural strength               | ISO 178     | MPa               | 225   |
| Flexural modulus                | ISO 178     | GPa               | 8,5   |
| IZOD impact strength, notched   | ISO 180/1eA | kJ/m <sup>2</sup> | 12,0  |
| IZOD impact strength, unnotched | ISO 180/1eU | kJ/m <sup>2</sup> | 70    |

### Thermal properties

|                                               |           |                                   |     |
|-----------------------------------------------|-----------|-----------------------------------|-----|
| Heat distortion temperature (1,81 MPa)        | ISO 75    | °C                                | 250 |
| Relative temperature index, 3 mm, with impact | UL 746B   | °C                                | 105 |
| Coefficient of linear thermal expansion       | ISO 11359 | K <sup>-1</sup> ·10 <sup>-5</sup> | 3,2 |

### Flammability

|                   |          |   |             |
|-------------------|----------|---|-------------|
| Burning behaviour | ISO 1210 | - | HB @ 1,5 mm |
| UL recognition    | UL94     | - | -           |

### Electrical properties

|                            |             |      |                  |
|----------------------------|-------------|------|------------------|
| Surface resistivity        | ASTM D257   | Ω/sq | 10 <sup>12</sup> |
| Comparative tracking index | IEC 60112   | V    | -                |
| Glow wire rating, 1,6 mm   | IEC 695-2-1 | °C   | 750              |

### Processing conditions (injection moulding)

|                                         |                       |
|-----------------------------------------|-----------------------|
| Drying conditions (dehumidifying drier) | : 3 - 5 Hours @ 80 °C |
| Maximum allowable moisture content      | : 0,10 %              |
| Melt temperature                        | : 275 - 295 °C        |
| Mould temperature                       | : 60 - 95 °C          |
| Screw speed                             | : 0,1 - 0,2 m/s       |
| Back pressure                           | : 0 - 1,0 MPa         |
| Injection pressure                      | : Keep to a minimum   |
| Injection speed                         | : Fast ram speed      |
| Hold pressure                           | : Keep to a minimum   |

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