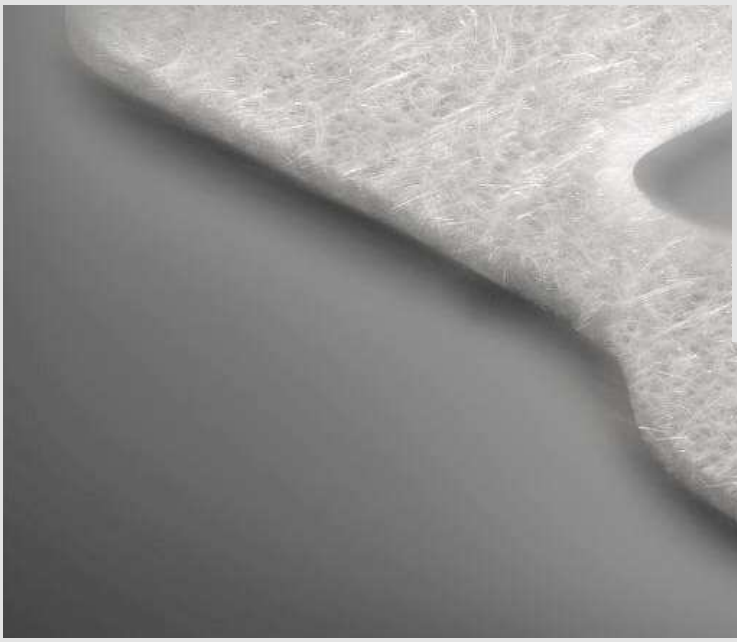
# TECHNICAL DATA SHEET



## powermat® E

E-glass needle mat

### PRODUCT CHARACTERISTICS

For **thermal insulation** and **acoustic absorption** in the area of the **automotive** and **shipbuilding** as well as **compensators** and **building construction**.

### TECHNICAL CHARACTERISTICS

| | |
|---|---|
| **Material** | textile glass fiber E-glass |
| **Application temperature** (DIN ISO 7884-8) | 640 °C |
| **Filament diameter** (ISO 1888) | 9 – 13 µm |
| **Ignition loss** (PA 003; following ISO 1887) * | ≤ 2,0 % * |
| **Volume shrinkage** (testet at 600 °C, for a period of 2 h) | 0 % * |
| **Binder** | binder free |

### THERMAL CONDUCTIVITY λ (DIN 52612-2)

density 160 kg/m³ / thickness 50 mm

| °C | 100 | 200 | 300 | 400 | 500 | 550 |
|---|---|---|---|---|---|---|
| W/m*K | 0,056 | 0,074 | 0,098 | 0,129 | 0,169 | 0,193 |

### ACOUSTIC ABSORPTION (DIN EN ISO 10534-2)

| Frequency | Hz | 125 | 250 | 500 | 1000 | 2000 | 4000 |
|---|---|---|---|---|---|---|---|
| By density 120 kg/m³, thickness 50 mm) | α | **> 0,06** | **0,1** | **0,26** | **0,55** | **0,86** | **0,94** |

### CHEMICAL COMPOSITION

| | $SiO_2$ | $Al_2O_3$ | $B_2O_3$ | MgO+CaO | $K_2O+Na_2O$ | Rest |
|---|---|---|---|---|---|---|
| Wt. - % | **52 – 56** | **12 – 16** | **5 – 10** | **16 - 30** | **< 2** | **≤ 2,5** |

* DBW testing specifications

The technical information provided to the current state of the technology and is accurate to the best of our knowledge.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