**Material - ROCK MINERAL WOOL | Form – WIRED MATS**

**Product Reference: KNAUF INSULATION TS POWER-TEK WM 680 GGN/GSN/SSN/GGA/GSA/SSA/GGV**

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| **Properties** | **ASTM Reference** | **Requirements \*** | |
| **Material** | **ASTM C592** | **Rock Mineral Wool Wired Mat**  **Type III** | |
| **Maximum Density - for weight design purposes only** | ASTM C592 / ASTM C167 | Maximum 128 kg/m3 (8 lb/ft3) | |
| **Maximum Use Temperature** | ASTM C447 / C411 | Up to 650 °C (1200 °F) | |
| **Apparent Thermal Conductivity** | ASTM C177 | Mean temperature °C (°F) | Thermal conductivity  W/m·K (Btu∙in/h∙ft²∙°F) |
| 100 (38) | 0.038 (0.26) |
| 200 (93) | 0.045 (0.31) |
| 300 (149) | 0.053 (0.37) |
| 400 (204) | 0.063 (0.44) |
| 500 (260) | 0.075 (0.52) |
| 600 (316) | 0.087 (0.60) |
| 700 (371) | 0.101 (0.70) |
| **Non-Fibrous (Shot) Content (% by weight)** | ASTM C1335 | Maximum 25% | |
| **Water Vapor Sorption (% by weight)** | ASTM C1104 | Maximum 1.25% | |
| **Corrosiveness** | ASTM C795 / ASTM C665 (sec-13.8) | Passed | |
| **Surface burning characteristics** | ASTM E84 | Maximum FSI *(Flame Spread Index)* = 25  Maximum SDI *(Smoke Developed Index)* = 50 | |
| **Non Combustibility** | ASTM E136 | Passed - Temperature rise not exceeding more than 54°F  (30 °C) with no flaming and weight loss exceeding 5% | |
| **Linear Shrinkage (length, max, % change after change)** | ASTM C356 | Maximum 4% | |
| **Odor Emission** | ASTM C1304 | Passed | |
| **Fungi Resistance** | ASTM C1338 | No Growth | |
| **Dimensional Recovery (% of label)** | ASTM C167 | Passed | |
| **Health and Safety Aspects** | Fiber Melting point: ≥ 1000 °C (DIN 4102-17)  Approximate nominal diameter of fibers: < 5 µm  Length weight geometric mean diameter less 2 standard errors: < 6 µm | | |
| **Packaging and Storage** | To ensure optimum product performance, when packaging is removed or opened, products should be stored inside or covered to protect them from ingress of rain water or snow. Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended. Delivered packed in polyethylene film and or on wooden pallets.  No specific material or group of materials is likely to react with the product to produce a hazardous situation. | | |
| **Sizes** | Standard width: 500 mm / 900 mm / 1000 mm  Standard thickness range: 30 mm ÷ 120 mm | | |

\* Requirements according to the standard ASTM C592