**Material - ROCK MINERAL WOOL | Form – BOARD**

**Product Reference: KNAUF INSULATION TS POWER-TEK BD 660**

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| **Properties** | **ASTM Reference** | **Requirements \*** | |
| **Material** | **ASTM C612** | **Rock Mineral Wool Board**  **Type IVA** | |
| **Maximum Density - for weight design purposes only** | ASTM C612 / ASTM C303 | Maximum 192 kg/m3 (12 lb/ft3) | |
| **Dimensions and Tolerances (on label)** | ASTM C303 | Maximum Length Tolerance: ± 12.7 mm  Maximum Width Tolerance: ± 6.4 mm  Thickness Tolerance: not greater than 6.4 mm or less than 3.2 mm | |
| **Maximum Use Temperature** | ASTM C447 / C411 | Up to 650 °C (1200 °F) | |
| **Exothermic Temperature Rise** | ASTM C447 / C411 | Maximum 111 °C (200 °F) | |
| **Apparent Thermal Conductivity** | ASTM C177 | Mean temperature °C (°F) | Thermal conductivity  W/m·K (Btu∙in/h∙ft²∙°F) |
| 100 (38) | 0.039 (0.27) |
| 200 (93) | 0.049 (0.34) |
| 300 (149) | 0.063 (0.44) |
| 400 (204) | 0.079 (0.55) |
| 500 (260) | 0.101 (0.70) |
| 600 (316) | 0.123 (0.85) |
| 700 (371) | 0.144 (1.00) |
| **Non-Fibrous (Shot) Content (% by weight)** | ASTM C1335 | Maximum 25% | |
| **Water Vapor Sorption (% by weight)** | ASTM C1104 | Maximum 5% | |
| **Corrosiveness** | ASTM C665 (sec-13.8) | Passed | |
| **Surface burning characteristics** | ASTM E84 | Maximum FSI *(Flame Spread Index)* = 25  Maximum SDI *(Smoke Developed Index)* = 50 | |
| **Linear Shrinkage (length, max, % change after change)** | ASTM C356 | Maximum 2% | |
| **Compressive Resistance at 10%** | ASTM C165 | Minimum 2.4 kPa (50 lb/ft²) | |
| **Odor Emission** | ASTM C1304 | Passed | |
| **Fungi Resistance** | ASTM C1338 | No Growth | |
| **Rigidity** | ASTM C1101 | Rigid or Semi-rigid | |
| **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 thickness range: 30 mm ÷ 100 mm | | |

\* Requirements according to the standard ASTM C612