

# PRODUCT DATASHEET

## PAROC Pro Mat WR 660



Stone wool mat with leading edge water repellence.

Thermal insulation in industrial equipments and applications.

The superior water repellency of PAROC WR products up to 300°C reduces the risk of corrosion under insulation. PAROC WR products are also safe to use in combination with painting operations: PAROC WR products are 3rd party tested and certified according to the most stringent class of the LABS conformity (paint wetting impairment) standard, VDMA 24364

PAROC stone wool products are capable of withstanding high temperatures. The binder starts to evaporate when its temperature exceeds approximately 200 °C. The insulating properties remain unchanged, but the compressive stress weakens. The softening temperature of stone wool products is over 1000 °C.

|                             |  |
|-----------------------------|--|
| <b>Certification Number</b> | 0809-CPR-1016 Eurofins Expert Services Ltd, Kivimiehentie 4, FI-02150 Espoo, Finland |
| <b>Designation Code</b>     | MW-EN 14303-T2-ST(+)-660-WS1-CL10  |
| <b>Nominal Density</b>      | 100 kg/m <sup>3</sup>  |
| <b>Package Type</b>         | Plastic Packs on Pallet  |

| DIMENSIONS          |                     |
|---------------------|---------------------|
| WIDTH X LENGTH      | THICKNESS           |
| 1000 x 8000 mm      | 30 mm               |
| 1000 x 6500 mm      | 40 mm               |
| 1000 x 4500 mm      | 50 mm               |
| 1000 x 4000 mm      | 60 mm               |
| 1000 x 3500 mm      | 70 mm               |
| 1000 x 3000 mm      | 80 mm               |
| 1000 x 3000 mm      | 90 mm               |
| 1000 x 2000 mm      | 100 mm              |
| According to EN 822 | According to EN 823 |

| PROPERTY  | VALUE  | ACCORDING TO                     |
|---|--------|----------------------------------|
| <b>DIMENSIONAL STABILITY</b>                        |        |                                  |
| Maximum Service Temperature - Dimensional Stability | 660 °C | EN 14303:2009+A1:2013 (EN 14706) |

## Properties

| PROPERTY   | VALUE  | ACCORDING TO                       |
|--|--|------------------------------------|
| <b>FIRE PROPERTIES</b>   |  |                                    |
| Reaction to Fire, Euroclass  | A1   | EN 14303:2009+A1:2013 (EN 13501-1) |
| Continuous Glowing Combustion  | NPD  | EN 14303:2009+A1:2013              |
| <b>THERMAL PROPERTIES</b>  |  |                                    |
| Thermal Conductivity in 10 °C, $\lambda_{10}$  | 0,035 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 50 °C, $\lambda_{50}$  | 0,039 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 100 °C, $\lambda_{100}$  | 0,045 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 150 °C, $\lambda_{150}$  | 0,051 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 200 °C, $\lambda_{200}$  | 0,059 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 300 °C, $\lambda_{300}$  | 0,078 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 400 °C, $\lambda_{400}$  | 0,102 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 500 °C, $\lambda_{500}$  | 0,131 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Thermal Conductivity in 600 °C, $\lambda_{600}$  | 0,167 W/mK   | EN 14303:2009+A1:2013 (EN 12667)   |
| Dimensions and Tolerances  | T2   | EN 14303:2009+A1:2013 (EN 823)     |
| <b>MOISTURE PROPERTIES</b>   |  |                                    |
| Water Absorption, Short Term WS, ( $W_p$ )   | $\leq 1 \text{ kg/m}^2$  | EN 14303:2009+A1:2013 (EN 1609)    |
| Water Vapour Diffusion Resistance  | NPD  | EN 14303:2009+A1:2013 (EN 12086)   |
| Chloride Ions, Cl-   | < 10 ppm   | EN 14303:2009+A1:2013 (EN 13468)   |
| PAROC WR Mats are providing very low water absorption < 0,1 kg/m <sup>2</sup> at temperatures up to 300°C according to EN 1609 |  |                                    |
| <b>SOUND PROPERTIES</b>  |  |                                    |
| Sound Absorption   | NPD  | EN 14303:2009+A1:2013 (EN ISO 354) |
| <b>MECHANICAL PROPERTIES</b>   |  |                                    |
| Compressive stress at 10 % deformation CS(10), $\sigma_{10}$   | NPD  | EN 14303:2009+A1:2013 (EN 826)     |
| <b>EMISSIONS</b>   |  |                                    |
| Release of Dangerous Substances  | NPD  | EN 14303:2009+A1:2013              |
| <b>DURABILITY OF FIRE AND THERMAL PROPERTIES</b>   |  |                                    |
| Durability of Reaction to Fire Against Ageing/Degradation  | No change in reaction to fire properties for mineral wool products. The fire performance of mineral wool does not deteriorate with time. The Euroclass classification of the product is related to the organic content, which cannot increase with time. |                                    |
| Durability of Reaction to Fire Against High Temperature  | The fire performance of mineral wool does not deteriorate with high temperature. The Euroclass classification of the product is related to the organic content, which remains constant or decreases with high temperature.                               |                                    |
| Durability of Thermal Resistance Against Ageing/Degradation  | Thermal conductivity of mineral wool products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air.  |                                    |

PAROC Pro Mats can be used to satisfy the requirements as given in the tables for insulation thickness in BS5422:2009. Paroc can offer help and assistance to customers to confirm that the insulation systems proposed do in fact achieve the necessary performance criteria.



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