

PRODUCT DATASHEET



PAROC Pro Slab WR 640

Non-combustible stone wool insulation slab with outstanding water repellence.

Thermal insulation of industrial flue ducts, vessels, boiler walls, boiler penthouses, filters and other industrial equipment.

The superior water repellency of PAROC WR products at elevated temperatures 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.

Certification Number

0809-CPR-1016 Eurofins Expert Services Ltd, Kivimiehentie 4, FI-02150 Espoo, Finland

Designation Code

MW-EN 14303-T5-ST(+)-640-WS1-CL10

Nominal Density

80 kg/m³

Package Type

Plastic packs on pallet

| DIMENSIONS | |
|---|---------------------|
| WIDTH X LENGTH | THICKNESS |
| 600 x 1200 mm | 20 - 250 mm |
| According to EN 822 | According to EN 823 |
| Other Dimensions: Available on request. | |

| PROPERTY | VALUE | ACCORDING TO |
|---|--------|----------------------------------|
| DIMENSIONAL STABILITY | | |
| Maximum Service Temperature - Dimensional Stability | 640 °C | EN 14303:2009+A1:2013 (EN 14706) |

Properties

| PROPERTY | VALUE | ACCORDING TO |
|--|--|------------------------------------|
| FIRE PROPERTIES | | |
| Reaction to Fire, Euroclass | A1 | EN 14303:2009+A1:2013 (EN 13501-1) |
| Continuous Glowing Combustion | NPD | EN 14303:2009+A1:2013 |
| THERMAL PROPERTIES | | |
| Thermal Conductivity in 10 °C, λ_{10} | 0,035 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 50 °C, λ_{50} | 0,039 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 100 °C, λ_{100} | 0,045 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 150 °C, λ_{150} | 0,053 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 200 °C, λ_{200} | 0,062 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 250 °C, λ_{250} | 0,072 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 300 °C, λ_{300} | 0,084 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 400 °C, λ_{400} | 0,112 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 500 °C, λ_{500} | 0,144 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 600 °C, λ_{600} | 0,185 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Thermal Conductivity in 640 °C, λ_{640} | 0,203 W/mK | EN 14303:2009+A1:2013 (EN 12667) |
| Dimensions and Tolerances | T5 | EN 14303:2009+A1:2013 (EN 823) |
| MOISTURE PROPERTIES | | |
| 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 slabs are providing very low water absorption at elevated temperatures according to BS EN ISO 29767:2019. | | |
| SOUND PROPERTIES | | |
| Sound Absorption | NPD | EN 14303:2009+A1:2013 (EN ISO 354) |
| MECHANICAL PROPERTIES | | |
| Compressive stress at 10 % deformation CS(10), σ_{10} | NPD | EN 14303:2009+A1:2013 (EN 826) |
| EMISSIONS | | |
| Release of Dangerous Substances | NPD | EN 14303:2009+A1:2013 |
| DURABILITY OF FIRE AND THERMAL PROPERTIES | | |
| 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 slabs 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. PAROC slabs conform to BS3958-5.



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