

## PRODUCT DATASHEET

### PAROC Pro Mat WR 640



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.

**Certification Number**

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

**Designation Code**

MW-EN 14303-T2-ST(+)-640-WS1-CL10

**Nominal Density**

80 kg/m<sup>3</sup>

**Package Type**

Plastic Packs on Pallet

DIMENSIONS	
WIDTH X LENGTH	THICKNESS
1000 x 8000 mm	30 mm
1000 x 6500 mm	40 mm
1000 x 5000 mm	50 mm
1000 x 4000 mm	60 mm
1000 x 3500 mm	70 mm
1000 x 3500 mm	80 mm
1000 x 3000 mm	90 mm
1000 x 2000 mm	100 mm
1000 x 2000 mm	110 mm
1000 x 2000 mm	120 mm
According to EN 822	According to EN 823

PROPERTY	VALUE	ACCORDING TO
<b>DIMENSIONAL STABILITY</b>		
Maximum Service Temperature - Dimensional Stability	640 °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, $\lambda_{50}$	0,040 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 100 °C, $\lambda_{100}$	0,046 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 150 °C, $\lambda_{150}$	0,053 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 200 °C, $\lambda_{200}$	0,062 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 300 °C, $\lambda_{300}$	0,084 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 400 °C, $\lambda_{400}$	0,111 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 500 °C, $\lambda_{500}$	0,146 W/mK	EN 14303:2009+A1:2013 (EN 12667)
Thermal Conductivity in 600 °C, $\lambda_{600}$	0,190 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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