

PAROC Pro Wired Mat WR 680 TH1

PAROC Pro Wired Mat WR 680 TH1 is a non-combustible stone wool mat with outstanding water repellence and with a metallic mesh on one side.

The product is intended for the thermal and acoustic insulation of industrial equipment, including pressure vessels, reactors, heat exchangers, boilers, ducts, and large-diameter pipework.

PAROC WR products are an excellent tool for minimizing the risk of CUI (corrosion under insulation), keeping the outstanding water repellent properties at elevated temperatures. PAROC WR products are safe to use in combination with painting operations.

This product is also available with AL1, AluCoat or Comfort facing, and with stainless steel mesh and sewing wire (W2) or with galvanized mesh and stainless steel sewing wire (SW2).



Product Data Sheet

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Dimensions (mm)

Width x Length

Thickness

1000 x 2000

120

1000 x 2500

100

1000 x 3000

90

1000 x 3500

70,80

1000 x 4000

60

1000 x 4500

50

1000 x 5000

40

1000 x 7000

30

Nominal Density

100 kg/m³

Other dimensions are available on request.

Product characteristics according to EN 14303

Designation Code	MW-EN 14303-T2-ST(+)-680-WS1-CL10
DoP Number	40443
Thickness Tolerance, T	T2
Reaction to Fire, Euroclass	A1
Maximum Service Temperature - Dimensional Stability	680 °C
Water Absorption, Short Term, W _p	≤ 1 kg/m ²
Trace Quantity of Water-soluble Chloride Ions	≤ 10 ppm
Thermal Conductivity, λ _D	See table below

°C	10	50	100	150	200	300	400	500	600	680
λ _D W/(m*K)	0.036	0.042	0.047	0.054	0.063	0.083	0.110	0.142	0.180	0.214

Fire Properties	Maximum temperature exposure of the galvanized mesh: +300 °C. For higher temperatures we recommend choosing stainless steel mesh (W2). PAROC Stonewool products are capable of withstanding high temperatures. The binder starts to evaporate when its temperature exceeds approximately 200°C while the fire protecting properties remain unchanged. Stone wool has a high melting point of over 1000°C (internal test method).
Moisture Properties	PAROC WR-grade flat products are providing a very low water absorption (average water absorption level <0,1 kg/m² after 300°C/24h prebake) according to BS EN ISO 29767, based on 3rd-party testing in 2019 and internal testing in 2023-2024.
Environmental Properties	The European Certification Board for Mineral Wool products (EUCERB) trademark on our products confirms that PAROC Stonewool fibre fulfils the bio solubility requirements of EU directive No. 1272/2008. The German RAL quality mark confirms that the bio solubility and safety requirements are met according to the German technical regulation TRGS905. PAROC Stonewool is made of stone. The volume of the product is ~98% air and only ~2% fiberized stone. The excellent properties of the product are based on the properties of the raw materials. PAROC Stonewool maintains its insulating ability and dimensions throughout the reference service life of the the building, which is considered to be minimum 50 years.
Certificates and Approvals	EC Certificate of Conformity 0809-CPR-1016 PAROC WR products are safe to use in combination with painting operations: PAROC WR products are 3rd party tested, passing the requirements of the most stringent class of the LABS conformity (paint wetting impairment) standard, VDMA 24364. PAROC wired mats can be used to satisfy the requirements as given in the tables for insulation thickness in BS5422:2023. PAROC can offer help and assistance to customers to confirm that the insulation systems proposed do in fact achieve the necessary performance criteria. PAROC wired mats conform to BS3958-3.
Storage and Installation	PAROC products should be stored in packaging protected against external weather conditions. Installation in accordance with the design assumptions or based on the manufacturer's instructions.

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