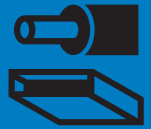


# Orstech 100

(TECH Slab MT 5.1)  
Slab



Specification code: MW – EN 14303 – T4 – ST(+)-660 – WS1 – CL10

## PRODUCT DESCRIPTION

Orstech 100 is a strong and rigid slab.

## APPLICATION

The slab is suitable for thermal and acoustic insulation of boilers, columns and vessels with very high temperatures.

Despite the fact that hydrophobing additives in the insulation impede the ingress of water, it is necessary to protect the slab in the construction against moisture and possible mechanical damage by a proper manner.

Orstech 100 has a maximum service temperature of 660 °C according to EN 14706. If the slab is with a facing then the surface temperature must not exceed 100 °C on the facing; proper thickness of insulation must be designed to fulfil that. Binders and greasing agents in mineral wool products dissolve and evaporate in areas with temperatures > 150 °C. In the outer, colder areas, no dissolution and evaporation take place.

## PACKAGING, TRANSPORT, WAREHOUSING

The product is supplied as free packages or palletized. Material has to be transported in covered vehicles under such conditions to avoid moisture or other degradation.

## BENEFITS

- excellent insulation performance
- very high temperature operation (up to 660 °C MST)
- easy to handle, easy to cut with a sharp knife
- AS quality – suitable for use over stainless steel

## DIMENSIONS AND PACKAGING

Product	Thickness (mm)	Dimensions (mm)	Per package (m <sup>2</sup> )
Orstech 100	40	1000 × 500	6.0
Orstech 100	50	1000 × 500	4.0
Orstech 100	60	1000 × 500	4.0
Orstech 100	80	1000 × 500	3.0
Orstech 100	100	1000 × 500	2.0

Slab can be manufactured with the aluminium foil facing (Orstech 100 H) or with the glass tissue facing (Orstech 100 NT). Minimum order quantity has to be consulted with a producer.

## TECHNICAL PARAMETERS

Parameter	Unit	Value										Standard
THERMAL INSULATING PROPERTIES												
Declared value of the thermal conductivity coefficient $\lambda_p$ according to EN ISO 13787	°C	50	100	150	200	250	300	400	500	600	660	
	W·m <sup>-1</sup> ·K <sup>-1</sup>	0.041	0.047	0.054	0.063	0.073	0.084	0.110	0.143	0.182	0.209	
Measured value of the thermal conductivity coefficient according to EN 12667*	W·m <sup>-1</sup> ·K <sup>-1</sup>	0.039	0.045	0.052	0.059	0.068	0.077	0.099	0.128	0.160	0.190	
Maximum service temperature ST(+)/ on the facing	°C	660 / max. 100					EN 14706					
Specific heat capacity $c_p$ *	J·kg <sup>-1</sup> ·K <sup>-1</sup>	800					-					
PHYSICAL PROPERTIES												
Density*	kg·m <sup>-3</sup>	100					EN 1602, EN 13470					
Short term water absorption ( $W_p$ ) WS	kg·m <sup>-2</sup>	<< 1					EN 1609					
Longitudinal air-flow resistance $\Xi$ *	kPa·s·m <sup>-2</sup>	> 65					EN ISO 9053-1					
FIRE SAFETY PROPERTIES												
Orstech 100, Orstech 100NT: Reaction to fire	-	A1					EN 13501-1					
Orstech 100H: Reaction to fire	-	A2-s1, d0					EN 13501-1					
Melting temperature $t_m$ *	°C	≥ 1000					DIN 4102 part 17					
ACOUSTIC PROPERTIES												
The practical sound absorption coefficient $\alpha_p$ according to EN ISO 354 and EN ISO 11654 *	Frequency	Hz	125	250	500	1000	2000	4000				
	Thickness	40	mm	0.15	0.50	1.00	1.00	0.95	1.00			
		50	mm	0.20	0.75	1.00	1.00	0.95	1.00			
	100	mm	0.45	0.95	1.00	1.00	1.00	1.00				
Definition of single numerical value according to EN ISO 11654*	Weighted sound absorption coefficient	-	$\alpha_w$			Absorption class						
	Thickness	40	mm	0.80			B					
		50	mm	1.00			A					
	100	mm	1.00			A						

\* Informative non-declared value beyond scope of CPR, obtained by concrete tests.

28. 8. 2019 The information is valid up to date of publishing. The manufacturer reserves right to change the data.