

# Orstech 100

## Orstech 100 NT / Orstech 100 H

(TECH Slab MT 5.1)  
Slab of mineral wool



### 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.

### 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.

### PACKAGING, TRANSPORT, WAREHOUSING

The product is supplied as free packages or palletized. Material has to be transported and stored under such conditions to avoid moistening or other degradation.

### DIMENSIONS AND PACKAGING

Thickness [mm]	Dimensions [mm]	Per package [m <sup>2</sup> ]	Quantity per pallet [m <sup>2</sup> ]
40	1 000 × 500	6.0	60
50	1 000 × 500	4.0	48
60	1 000 × 500	4.0	40
80	1 000 × 500	3.0	30
100	1 000 × 500	2.0	24

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
<b>Thermal technical properties</b>													
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(+)	°C	660 / max. 100										EN 14706	
Specific heat capacity $c_p$ *	J·kg <sup>-1</sup> ·K <sup>-1</sup>	800										-	

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Parameter	Unit	Value							Standard		
<b>Physical properties</b>											
Density*	kg·m <sup>-3</sup>	100							EN 13470		
Short-term water absorption ( $W_p$ ) WS	kg·m <sup>-2</sup>	<< 1							EN ISO 29767		
Longitudinal air-flow resistance $\Xi^*$	kPa·s·m <sup>-2</sup>	> 65							EN ISO 9053-1		
<b>Fire safety properties</b>											
Orstech 100, Orstech 100NT: Reaction to fire	-	A1							EN 13501-1		
Orstech 100H: Reaction to fire	-	A2-s1, d0							EN 13501-1		
Melting temperature $t_f^*$	°C	≥ 1 000							DIN 4102 part 17		
<b>Acoustic properties</b>											
Acoustic absorption coefficient $\alpha_p$ for perpendicular impact of acoustic waves (-) according to EN ISO 354 and EN ISO 11654*	Frequency	Hz	125	250	500	1 000	2 000	4 000			
	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	0.90				B			
		50	mm	1.00				A			
		100	mm	1.00				A			

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

More about the product

[www.isover.cz/en/products/orstech-100](http://www.isover.cz/en/products/orstech-100)



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