

# Orstech 65

## Orstech 65 NT / Orstech 65 H

(TECH Slab MT 3.1)  
Slab of mineral wool



### PRODUCT DESCRIPTION

Orstech 65 is stone wool slab, which can be manufactured with the aluminium foil facing (Orstech 65 H) or with the glass tissue facing (Orstech 65 NT).



### APPLICATION

The slab is suitable for thermal and acoustic insulation for air ducts, sound absorbers, horizontal and vertical walls of vessels, tanks and equipment. Slab is suitable for flat and slightly curved walls. Slab Orstech 65 H is part of fire resistant ductwork system ORSTECH Protect (EI 60 S according to EN 1366-1), details are available in system data sheet.

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.

When exposure to high temperatures and long-term dynamic loads (vibrations), it is recommended to use a slab with higher density (min. 100 kg/m<sup>3</sup>) or a wired mat. Orstech 65 has a maximum service temperature of 600 °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

- Quality certificate according to VDI 2055 - annual audit testing by FIW Munich from year 2000.
- Insulation material designation code according to AGI Q 132: 10.07.01.20.07.
- Slab Orstech 65 H is part of fire resistant ductwork system ORSTECH Protect according to EN 1366-1 with classification EI 60 S (rectangular duct type A - fire scenario outside).
- Easy to handle, easy to cut with a sharp knife.
- Fast installation.
- 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 in covered vehicles under such conditions to avoid moistening or other degradation.

### DIMENSIONS AND PACKAGING

Thickness [mm]	Dimensions [mm]	Per package [m <sup>2</sup> ]	Package/ Pallet [pcs]	m <sup>2</sup> / Pallet [m <sup>2</sup> ]
40	1 000 × 500	6.0	10	60
50	1 000 × 500	5.0	10	50
60	1 000 × 500	4.0	10	40
80	1 000 × 500	3.0	10	30
100	1 000 × 500	2.5	10	25

Slab can be manufactured with the aluminium foil facing (Orstech 65 H) or with the glass tissue facing (Orstech 65 NT). Minimum order quantity (MOQ) of the slabs with the facing Orstech 65 H or NT has to be consulted with a producer. Without MOQ only slabs Orstech 65 H thickness 40 and 60 mm and slabs Orstech 65 NT thickness 50 mm. Other thicknesses and dimensions then stated can be produced at request when fulfilling minimum volume.

### 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
	W·m <sup>-1</sup> ·K <sup>-1</sup>	0.041	0.048	0.058	0.068	0.081	0.097	0.134	0.183	0.248
Measured value of the thermal conductivity coefficient according to EN 12667*	W·m <sup>-1</sup> ·K <sup>-1</sup>	0.039	0.046	0.054	0.063	0.075	0.089	0.123	0.166	0.220
Maximum service temperature ST(+)	°C	600 / 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>	65	EN 1602, EN 13470	
Short term water absorption ( $W_p$ ) WS	kg·m <sup>-2</sup>	<< 1	EN ISO 29767	
Equivalent diffusion thickness of the aluminium foil $s_d^*$	m	> 100	EN 12086	
Longitudinal air-flow resistance $\Xi^*$	kPa·s·m <sup>-2</sup>	> 25	EN ISO 9053-1	
<b>Fire safety properties</b>				
Orstech 80: Reaction to fire	-	A1	EN 13501-1	
Orstech 80H: Reaction to fire	-	A2-s1, d0	EN 13501-1	
Melting temperature $t_i^*$	°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	0.10    0.45    0.90    1.00    1.00    0.95
		60	mm	0.25    0.80    1.00    1.00    1.00    1.00
		80	mm	0.35    1.00    1.00    1.00    1.00    1.00
		100	mm	0.50    1.00    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	0.75 (MH)    C
		60	mm	1.00    A
		80	mm	1.00    A
		100	mm	1.00    A
<b>Classification according to AGI Q 132</b>				
Insulation material designation code	-	10.07.01.20.07	AGI Q 132	

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

21/2/2023 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.