



October 2016

# **Knauf Insulation Technical Solutions**

Product Brochure



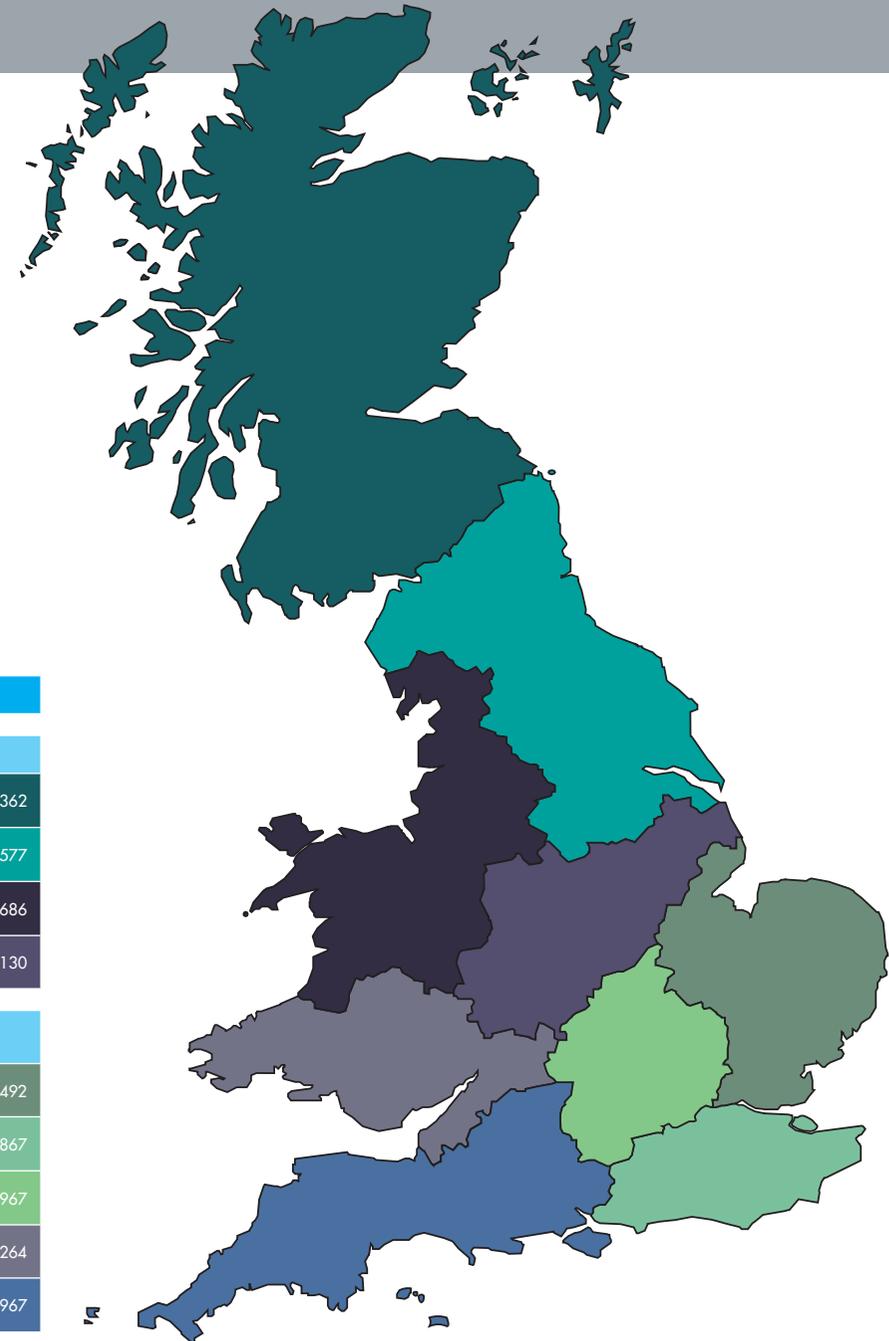
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## Application overview

			Pipe	Ducts	Boiler	Tanks	Vessel	Acoustic Insulation	Ovens	Air handling units	
HVAC	Duct	HPS 035 AluR	•								
		Klima Duct Roll KDR033		•							
		Klima Duct Slab KDB033			•						
		PyroDuct			•						
Industrial	Pipe Section	IPS 680	•								
	Wired Mat	WM640	•		•	•	•	•			
		WM660	•		•	•	•	•	•		
		WM 680	•		•	•	•	•	•		
	High Temperature Boards	HTB 350 (D45)			•	•	•	•	•	•	•
		HTB 550 (D60)			•	•	•	•	•	•	•
		HTB 640 (D80)			•	•	•	•	•	•	•
		HTB 660 (D100)			•	•	•	•	•	•	•
		HTB 690 (D140)			•	•	•	•	•	•	•

# HVAC Pipe Section

Pipe section HPS 035 AluR													
Diameter (mm)	20mm Wall Thickness		25mm Wall Thickness		30mm Wall Thickness		40mm Wall Thickness		50mm Wall Thickness		60mm Wall Thickness		Diameter (mm)
	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	
	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	
15	57.6	1,036.8	39.6	712.8	30.0	540.0							15
18	50.4	907.2	32.4	583.2	30.0	540.0	16.8	302.4	10.8	194.4			18
22	43.2	777.6	32.4	583.2	24.0	432.0	15.6	280.8	10.8	194.4	7.2	129.6	22
28	36.0	648.0	27.6	496.8	24.0	432.0	14.4	259.2	10.8	194.4	7.2	129.6	28
35	30.0	540.0	21.6	388.8	19.2	345.6	10.8	194.4	9.6	172.8	6.0	108.0	35
42	21.6	388.8	16.8	302.4	14.4	259.2	10.8	194.4	7.2	129.6	6.0	108.0	42
48	19.2	345.6	16.8	302.4	12.0	216.0	10.8	194.4	7.2	129.6	4.8	86.4	48
54	16.8	302.4	12.0	216.0	9.6	172.8	9.6	172.8	6.0	108.0	4.8	86.4	54
60	14.4	259.2	12.0	216.0	9.6	172.8	7.2	129.6	6.0	108.0	4.8	86.4	60
64	12.0	216.0	10.8	194.4	9.6	172.8	7.2	129.6	4.8	86.4	4.8	86.4	64
70	13.2	237.6	10.8	194.4	10.8	194.4	6.0	108.0	4.8	86.4	4.8	86.4	70
76	10.8	194.4	9.6	172.8	8.4	151.2	4.8	86.4	4.8	86.4	4.8	86.4	76
89	10.8	194.4	8.4	151.2	7.2	129.6	4.8	86.4	4.8	86.4	1.2	72.0	89
102	4.8	86.4	4.8	86.4	4.8	86.4	4.8	86.4	1.2	76.8	1.2	62.4	102
108	4.8	86.4	4.8	86.4	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0	108
114	6.0	108.0	4.8	86.4	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0	114
133			4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0	1.2	48.0	133
140			4.8	86.4	1.2	79.2	1.2	64.8	1.2	57.6	1.2	48.0	140
159			1.2	72.0	1.2	62.4	1.2	60.0	1.2	48.0	1.2	43.2	159
168			1.2	64.8	1.2	60.0	1.2	55.2	1.2	48.0	1.2	38.4	168
194			1.2	52.8	1.2	48.0	1.2	43.2	1.2	38.4	1.2	31.2	194
219			1.2	TBC	1.2	38.4	1.2	38.4	1.2	31.2	1.2	28.8	219
245			1.2	38.4	1.2	33.6	1.2	26.4	1.2	24.0	1.2	21.6	245
273			1.2	28.8	1.2	26.4	1.2	21.6	1.2	21.6	1.2	21.6	273
305			1.2	21.6	1.2	21.6	1.2	21.6	1.2	16.8	1.2	14.4	305
324			1.2	21.6	1.2	21.6	1.2	16.8	1.2	14.4	1.2	14.4	324

 = One piece shrink-wrapped  
 = Boxed. 18 boxes per pallet. Box dimensions (H x W x D)  
 1200 x 400 x 400mm

Bespoke dimensions and packaging available upon request and may be subject to extended lead times and minimum order quantity

For complete technical information please see product datasheet at [www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)



# HVAC Pipe Section

Pipe section HPS 035 AluR											
Diameter (mm)	70mm Wall Thickness		80mm Wall Thickness		90mm Wall Thickness		100mm Wall Thickness		120mm Wall Thickness		Diameter (mm)
	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	
	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	
15											15
18											18
22	4.8	86.4	4.8	86.4							22
28	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0			28
35	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0			35
42	4.8	86.4	1.2	76.8	1.2	62.4	1.2	52.8	1.2	38.4	42
48	4.8	86.4	1.2	72.0	1.2	60.0	1.2	52.8	1.2	38.4	48
54	4.8	86.4	1.2	72.0	1.2	60.0	1.2	50.4	1.2	38.4	54
60	1.2	79.2	1.2	64.8	1.2	57.6	1.2	48.0	1.2	38.4	60
64	1.2	74.4	1.2	60.0	1.2	52.8	1.2	48.0	1.2	33.6	64
70	1.2	72.0	1.2	60.0	1.2	48.0	1.2	40.8	1.2	31.2	70
76	1.2	72.0	1.2	60.0	1.2	48.0	1.2	43.2	1.2	31.2	76
89	1.2	60.0	1.2	50.4	1.2	43.2	1.2	38.4	1.2	28.8	89
102	1.2	55.2	1.2	48.0	1.2	38.4	1.2	33.6	1.2	24.0	102
108	1.2	50.4	1.2	48.0	1.2	38.4	1.2	33.6	1.2	24.0	108
114	1.2	48.0	1.2	43.2	1.2	38.4	1.2	31.2	1.2	24.0	114
133	1.2	40.8	1.2	38.4	1.2	31.2	1.2	26.4	1.2	21.6	133
140	1.2	43.2	1.2	38.4	1.2	31.2	1.2	28.8	1.2	21.6	140
159	1.2	38.4	1.2	31.2	1.2	28.8	1.2	24.0	1.2	21.6	159
168	1.2	33.6	1.2	28.8	1.2	24.0	1.2	21.6	1.2	16.8	168
194	1.2	28.8	1.2	24.0	1.2	21.6	1.2	21.6	1.2	14.4	194
219	1.2	24.0	1.2	21.6	1.2	21.6	1.2	16.8	1.2	12.0	219
245	1.2	21.6	1.2	19.2	1.2	14.4	1.2	14.4	1.2	12.0	245
273	1.2	16.8	1.2	14.4	1.2	12.0	1.2	12.0	1.2	9.6	273
305	1.2	14.4	1.2	12.0	1.2	12.0	1.2	9.6	1.2	9.6	305
324	1.2	24.0	1.2	19.2	1.2	19.2	1.2	14.4	1.2	9.6	324

-  = One piece shrink-wrapped
-  = Boxed. 18 boxes per pallet. Box dimensions (H x W x D) 1200 x 400 x 400mm

Bespoke dimensions and packaging available upon request and may be subject to extended lead times and minimum order quantity

For complete technical information please see product datasheet at [www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)



# Product Overview HVAC Pipe Section

## HVAC Pipe Section HPS035 AluR

### Description

HPS 035 AluR are wound and ground, non-combustible pipe sections made from Rock Mineral Wool. The product has a jacket made from glass-fibre reinforced aluminium and has a self-adhesive closure in the longitudinal direction.

HPS035 has excellent insulating properties due to both low thermal conductivity and high-precision shape.

### Application

HPS 035 AluR pipe sections are suitable for thermal insulation and by default of their mineral wool construction also have excellent acoustic properties.

### Standards

HPS 035 AluR is manufactured to EN 14303 'Thermal insulation products for building equipment and industrial installations'



### ECOSE Technology

Knauf Insulation mineral wool products made with ECOSE® Technology benefit from a no added formaldehyde binder, which is up to 70% less energy intensive than traditional binders and is made from rapidly renewable bio-based materials instead of petroleum-based chemicals. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE Technology contain no dye or artificial colours

### Rock mineral wool performance

The melting point of the rock mineral wool used to manufacture HPS 035 fibres is above 1000°C (DIN 4102-17)

The product has a thermal conductivity of 0.035 W / m · K at 40°C average temperature for the full product range (inner diameter 15-324mm and 20-120mm insulation thickness). DoP is assessed annually by FIW (Munich)

### Product information

Values checked and declared in accordance with EN 14303

Property	Symbol	Description / Data				Unit	Test method/standard
Thermal conductivity in relation to temperature	$\vartheta_m$	10	50	100	150	°C	EN ISO 8497
	$\lambda_{\eta}$	0.033	0.037	0.044	0.052	W/(m.K)	
Reaction to fire*	-	A2Ls1, d0, Do≤300mm		A2Ls1, d0, Do>300mm		-	EN 13501-1
Water vapour diffusion resistance value	sd	100				m	EN13469
AS-Quality (part of water soluble chloride ions)	-	≤ 10				mg/kg	EN 13468
							AGI Q132
Maximum service temperature	ST(+)	fibre side ≤ 500, aluminium side ≤ 80				°C	EN 14707
Silicone free	-	Produced without addition of silicone oil				-	-
Hydrophobizing	W <sub>p</sub>	water absorption ≤ 1.0 kg/m <sup>2</sup>				-	EN 13472

\*depending on outside diameters



# Heating, Ventilating and Air Conditioning (HVAC)

## Klima Duct Roll (KDR)

### Klima Duct Roll (KDR 033 AluR)



Thickness* (mm)	Thermal Conductivity (W/mK)	R Value (m²K/W)	Length (m)	Width (mm)	Area per Roll (m²)	Rolls per pallet
50	0.033	1.50	9	1200	10.8	18
40	0.033	1.20	12	1200	14.4	18
25	0.033	0.75	18	1200	21.6	18

\*Other dimensions on request.

Properties:					Description:	
Properties	Symbol	Description / Data			Unit	
Maximum service temperature	ST(+)	230			°C	EN14706
Reaction to fire	–	A2			–	EN 13501-1
Heat conductivity Air inside duct (ambient 20°C)	ϕ	10	50	100	°C	EN ISO 8497
	λ	0.033	0.041	0.050	W/(m·K)	
Nominal density	ρ	32kg/m³			kg/m³	

### Description:

Klima Duct Roll KDR 033 is a strong, flexible roll of non-combustible, glass mineral wool with a reinforced aluminium foil facing to one side.

### Application:

Klima Duct Roll KDR 033 is used for the thermal and acoustic insulation of all shapes of ductwork in heating, ventilating and air conditioning systems and is suitable for all shapes of ductwork including:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Square ductwork</li> <li>• Rectangular ductwork</li> </ul> | <ul style="list-style-type: none"> <li>• Circular, oval and flat-oval ductwork</li> </ul> |
|---|---|

\*The aluminium facing can be exposed to temperatures up to 80 °C.

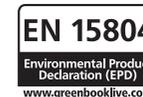
### Standards:

KDR 033 AluR is manufactured to EN 14303 'Thermal insulation products for building equipment and industrial installations'.



### ECOSE Technology

Knauf Insulation mineral wool products made with ECOSE® Technology benefit from a no added formaldehyde binder, which is up to 70% less energy intensive than traditional binders and is made from rapidly renewable bio-based materials instead of petroleum-based chemicals. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE Technology contain no dye or artificial colours



\*glass mineral wool content only

# Heating, Ventilating and Air Conditioning (HVAC)

## Klima Duct Boards (KDB)

### Klima Duct Board (KDB033)



Thickness* (mm)	Thermal Conductivity (W/mK)	R Value (m²K/W)	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m²)
50	0.033	1.50	1200	600	8	5.76
40	0.033	1.20	1200	600	8	5.76

\*Other dimensions on request.

Properties:					Description:	
Properties	Symbol	Description / Data			Unit	
Maximum service temperature	ST(+)	250			°C	EN14706
Reaction to fire	–	A1			–	EN 13501-1
Heat conductivity Air inside duct (ambient 20°C)	ϕ	10	50	100	°C	
	λ	0.033	0.040	0.047	W/(m·K)	
Nominal thickness	-	40, 50mm			mm	

**Description:**  
Klima Duct Board KDB 033 is manufactured from non-combustible, inorganic rock mineral wool to provide a robust slab with high thermal efficiency. It is supplied with a reinforced aluminium foil facing to one side.

**Application:**  
Klima Duct Board KDB 033 is recommended specifically for the thermal insulation of square and rectangular ductwork and equipment at a temperature up to 250° C.

• Square ductwork	• Rectangular ductwork
-------------------	------------------------

\*The aluminium facing can be exposed to temperatures up to 80 °C.

These technical data are for information purposes only. See the data sheet for current and complete specifications.

[www.knaufinsulation-process-solutions.com](http://www.knaufinsulation-process-solutions.com)



### ECOSE Technology

Knauf Insulation mineral wool products made with ECOSE® Technology benefit from a no added formaldehyde binder, which is up to 70% less energy intensive than traditional binders and is made from rapidly renewable bio-based materials instead of petroleum-based chemicals. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE Technology contain no dye or artificial colours

### Standards:

KDB 033 AluR is manufactured to EN 14303 'Thermal insulation products for building equipment and industrial installations'.



\*rock mineral wool content only

# Heating, Ventilating and Air Conditioning (HVAC)

Rocksilk

## Rocksilk PyroDuct Slab



Thickness* (mm)	Length (m)	Width (mm)	Slabs per Pack	Area per pack	Packs per pallet
45	1200	600	4	2.88	12
90	1200	600	2	1.44	12

\* Bespoke dimensions available upon request

### Performance

#### Duct type A - Fire Outside Duct

Fire resistance period - (minutes)	30	60	90	120
PyroDuct thickness (mm)	45	45	45	90

#### Duct type B - Fire Inside Duct

Fire resistance period - (minutes)	30	60	90	120
Minimum PyroDuct thickness (mm)	45	45	90	90

WF Assessment Report No: 362703 Issue 2

#### Kitchen Extract

Fire resistance period - (minutes)	30	60	-	-
Minimum PyroDuct thickness (mm)	45	90	-	-

WFRC No. C126732

Systems assessed in terms of BS476: Part 24

These technical data are for information purposes only. See the data sheet for current and complete specifications.  
www.knaufinsulation-ts.com

### Description:

Rocksilk PyroDuct Slab is a rigid, rock mineral wool slab with a reinforced aluminium foil facing to one side.

### Application:

Rocksilk PyroDuct Slab is fully tested and certified to provide up to two hours fire protection to HVAC steel ductwork. It can be used in horizontal ducts, vertical ducts, ducts passing through compartment walls and floors and kitchen extracts. PyroDuct Slabs are suitable for applications above clean rooms, within air plenums or for aesthetic purposes

### Standards:

Rocksilk PyroDuct is manufactured in accordance with BS EN 13162, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas





## Industrial process pipe section now available in ECOSE® Technology

- Now available in internal diameters from 15mm to 324mm
- Range includes more than 70 new dimensions
- Maximum service temperature of increased from 620°C to 680°C.

[www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)



# Process Pipe Section

Pipe section IPS 680											
Diameter (mm)	20mm Wall Thickness		25mm Wall Thickness		30mm Wall Thickness		40mm Wall Thickness		50mm Wall Thickness		Diameter (mm)
	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	
	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	
15	57.6	1,036.8	39.6	712.8	30.0	540.0					15
18	50.4	907.2	32.4	583.2	30.0	540.0	16.8	302.1			18
22	43.2	777.6	32.4	583.2	24.0	432.0	15.6	280.8	10.8	194.4	22
28	36.0	648.0	27.6	496.8	24.0	432.0	14.4	259.2	10.8	194.4	28
35	30.0	540.0	21.6	388.8	19.2	345.6	10.8	194.4	9.6	172.8	35
42	21.6	388.8	16.8	302.4	14.4	259.2	10.8	194.4	7.2	129.6	42
48	19.2	345.6	16.8	302.4	12.0	216.0	10.8	194.4	7.2	129.6	48
54	16.8	302.4	12.0	216.0	9.6	172.8	9.6	172.8	6.0	108.0	54
60	14.4	259.2	12.0	216.0	9.6	172.8	7.2	129.6	6.0	108.0	60
64	12.0	216.0	10.8	194.4	9.6	172.8	7.2	129.6	4.8	86.4	64
70	13.2	237.6	13.2	237.6	10.8	194.4	6.0	108.0	4.8	86.4	70
76	10.8	194.4	9.6	172.8	8.4	151.2	4.8	86.4	4.8	86.4	76
89	10.8	194.4	8.4	151.2	7.2	129.6	4.8	86.4	4.8	86.4	89
102	4.8	86.4	4.8	86.4	4.8	86.4	4.8	86.4	1.2	76.8	102
108	4.8	86.4	4.8	86.4	4.8	86.4	4.8	86.4	1.2	72.0	108
114	6.0	108.0	4.8	86.4	3.6	108.0	4.8	86.4	1.2	72.0	114
133			4.8	86.4	4.8	86.4	1.2	72.0	1.2	48.0	133
140			4.8	86.4	1.2	79.2	1.2	64.8	1.2	57.6	140
159			1.2	72.0	1.2	62.4	1.2	60.0	1.2	48.0	159
168			1.2	64.8	1.2	60.0	1.2	55.2	1.2	48.0	168
194			1.2	52.8	1.2	48.0	1.2	43.2	1.2	38.4	194
219					1.2	38.4	1.2	38.4	1.2	31.2	219
245			1.2	38.4	1.2	33.6	1.2	26.4	1.2	24.0	245
273			1.2	28.8	1.2	26.4	1.2	21.6	1.2	21.6	273
305			1.2	21.6	1.2	21.6	1.2	21.6	1.2	16.8	305
324			1.2	21.6	1.2	21.6	1.2	16.8	1.2	14.4	324

-  = One piece shrink-wrapped
-  = Boxed. 18 boxes per pallet. Box dimensions (H x W x D) 1200 x 400 x 400mm

Bespoke dimensions and packaging available upon request and may be subject to extended lead times and minimum order quantity

For complete technical information please see product datasheet at [www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)



# Process Pipe Section

Pipe section IPS 680													
Diameter (mm)	60mm Wall Thickness		70mm Wall Thickness		80mm Wall Thickness		90mm Wall Thickness		100mm Wall Thickness		120mm Wall Thickness		Diameter (mm)
	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	Qty/Pack	Qty Pallet	
	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	lm	
15													15
18													18
22													22
28	7.2	129.6	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0			28
35	6.0	108.0	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0			35
42	6.0	108.0	4.8	86.4	1.2	76.8	1.2	62.4	1.2	52.8	1.2	38.4	42
48	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0	1.2	52.8	1.2	38.4	48
54	4.8	86.4	4.8	86.4	1.2	72.0	1.2	60.0	1.2	50.4	1.2	38.4	54
60	4.8	86.4	1.2	79.2	1.2	64.8	1.2	57.6	1.2	48.0	1.2	38.4	60
64	4.8	86.4	1.2	74.4	1.2	60.0	1.2	52.8	1.2	48.0	1.2	33.6	64
70	4.8	86.4	1.2	72.0	1.2	60.0	1.2	48.0	1.2	40.8	1.2	31.2	70
76	4.8	86.4	1.2	72.0	1.2	60.0	1.2	48.0	1.2	43.2	1.2	31.2	76
89	1.2	72.0	1.2	60.0	1.2	50.4	1.2	43.2	1.2	38.4	1.2	28.8	89
102	1.2	62.4	1.2	55.2	1.2	48.0	1.2	38.4	1.2	33.6	1.2	24.0	102
108	1.2	60.0	1.2	50.4	1.2	48.0	1.2	38.4	1.2	33.6	1.2	24.0	108
114	1.2	60.0	1.2	48.0	1.2	43.2	1.2	38.4	1.2	31.2	1.2	24.0	114
133	1.2	48.0	1.2	40.8	1.2	38.4	1.2	31.2	1.2	26.4	1.2	21.6	133
140	1.2	48.0	1.2	43.2	1.2	38.4	1.2	31.2	1.2	28.8	1.2	21.6	140
159	1.2	38.4	1.2	38.4	1.2	31.2	1.2	28.8	1.2	24.0	1.2	21.6	159
168	1.2	38.4	1.2	33.6	1.2	28.8	1.2	24.0	1.2	21.6	1.2	16.8	168
194	1.2	31.2	1.2	28.8	1.2	24.0	1.2	21.6	1.2	21.6	1.2	14.4	194
219	1.2	33.6	1.2	28.8	1.2	26.4	1.2	21.6	1.2	19.2	1.2	14.4	219
245	1.2	28.8	1.2	28.8	1.2	24.0	1.2	19.2	1.2	19.2	1.2	14.4	245
273	1.2	28.8	1.2	21.6	1.2	21.6	1.2	19.2	1.2	19.2	1.2	14.4	273
305	1.2	24.0	1.2	19.2	1.2	19.2	1.2	14.4	1.2	14.4	1.2	12.0	305
324	1.2	24.0	1.2	19.2	1.2	19.2	1.2	14.4	1.2	14.4	1.2	9.6	324

-  = One piece shrink-wrapped
-  = Boxed. 18 boxes per pallet. Box dimensions (H x W x D) 1200 x 400 x 400mm

Bespoke dimensions and packaging available upon request and may be subject to extended lead times and minimum order quantity

For complete technical information please see product datasheet at [www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)



# Product overview - Industrial Pipe Section

## Industrial Pipe Section

### IPS 680

#### Description

IPS 680 is a circular wound, and surface ground rock mineral wool pipe section with a length of 1200mm. The section has a longitudinal slit to one side (semi-cut on inner counter side) for ease of pipe installation.

#### Application

IPS 680 Industrial Pipe Section is used for the thermal insulation of industrial pipework. By default of their mineral wool construction they also have excellent acoustic properties.

#### Standards

IPS 680 is manufactured to EN 14303 'Thermal insulation products for building equipment and industrial installations'.



#### ECOSE Technology

Knauf Insulation mineral wool products made with ECOSE® Technology benefit from a no added formaldehyde binder, which is up to 70% less energy intensive than traditional binders and is made from rapidly renewable bio-based materials instead of petroleum-based chemicals. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE Technology contain no dye or artificial colours

Product information								
Properties	Symbol	Description/Data			Unit	Test method / Standards		
Reaction to fire / Surface burning characteristics	–	A1 <sub>L</sub>			–	EN 13501-1		
Thermal conductivity in relation to temperature*	ϑ <sub>m</sub>	50	100	150	200	300	°C	EN ISO 8497
	λ	0.039	0.045	0.053	0.062	0.087		
Maximum service temperature*	ST(+)	680			°C	EN 14707		
AS-Quality*	–	< 10			mg/kg	EN 13468 / AGI Q 132		
Water vapour diffusion resistance value	μ	1			–	EN 12086		
Water absorption*	W <sub>p</sub>	≤ 1,0			kg/m <sup>2</sup>	EN 13472 / AGI Q 132		
Melting point of fibres	–	≥ 1000			°C	DIN 4102-17		
Silicone free	–	Produced without addition of silicone oil			–	–		
Designation code*	–	10.04.03.68.99			–	AGI Q 132		

\* VDI 2055 monitored.  
See the data sheet for current and complete specifications.  
[www.knaufinsulation-process-solutions.com](http://www.knaufinsulation-process-solutions.com)



#### Fire Behaviour

IPS 680 pipe section is classified as Euroclass A1 non-combustible.

#### Thermal Insulation

IPS 680 pipe section offers excellent thermal insulation properties for the medium temperature range of 50° to 300° C.

#### Maximum Service Temperature

IPS 680 pipe section has a maximum service temperature of 680 °C.

# Product overview - Industrial insulation

## Wired Mats

### WM 640



Thickness (mm)	Length (mm)	Width (mm)	Area (m <sup>2</sup> )	Rolls per pallet
30	6000	500	3.00	45
30	6000	1000	6.00	21
40	5500	500	2.75	45
40	5500	1000	5.50	21
50	4000	500	2.00	45
50	4000	1000	4.00	21
60	3500	500	1.75	45
60	3500	1000	3.50	21
70	3500	500	1.75	45
70	3500	1000	3.50	21
80	3000	500	1.50	45
80	3000	1000	3.00	21
90	2500	500	1.25	45
90	2500	1000	2.50	21
100	2500	500	1.25	45
100	2500	1000	2.50	21
120	2000	500	1.00	45
120	2000	1000	2.00	21

#### Properties:

Properties	Symbol	Description/Data	Unit	Test method	Standards
Maximum service temperature	ST(+)	640	°C	EN 14706	AGI Q 132 edition 2006
Thermal conductivity in relation to temperature	ϕ	50 100 200 300	°C	EN 12667	
	λ	0.040 0.046 0.063 0.085	W/(m·K)		
	ϕ	400 500 600	°C		
	λ	0.113 0.148 0.195	W/(m·K)		
Nominal density	ρ	80	kg/m <sup>3</sup>	EN 1602	
Designation code	–	10.01.02.64.08	–	–	
AS-Quality	–	≤ 10	ppm	EN13468	
Water absorption	W <sub>p</sub>	≤ 1,0	kg/m <sup>2</sup>	EN 1609	
Silicone free	–	Produced without addition of silicone oil	–	–	
Reaction to fire	–	A1	–	EN13820	EN 13501-1
Melting point of fibres	–	≥ 1000	°C	DIN 4102-17	DIN 4102-17
Water vapour diffusion resistance value	r	1	k Pa·s/m <sup>2</sup>	EN 12086	–
Wire mesh Wire	μ	25 mm x 0,7 mm 0,3 mm	–	EN 10223-2	AGI Q 132

#### Description:

Wired Mat WM 640 is a medium density, non-combustible rock mineral wool mat. Wired Mat WM 640 GG is supplied with galvanized steel mesh and stitched with galvanized steel wire. The mesh makes the Wired Mat a firm, but flexible insulation mattress, withstanding high operating temperatures.

#### Application:

Wired Mat WM 640 is recommended for thermal, acoustic and fire insulation in various industrial and HVAC applications:

<ul style="list-style-type: none"> <li>• Industrial pipe works</li> <li>• Vessels</li> <li>• Columns</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Tanks</li> <li>• Ducts</li> </ul>	<ul style="list-style-type: none"> <li>• Parts like: Elbows, Valves, T-pieces, Reductions, Flanges</li> <li>• Ship building</li> </ul>
<p>Wired Mat WM640 can be used for continuous operating temperatures up to 640 °C, and works particularly well for the insulation of large diameter and high temperature pipe work.</p>		

#### Also available as:

**Wired Mat WM 640 SG**  
can also be supplied with galvanized steel mesh and stainless wire.

**Wired Mat WM 640 S**  
can be also supplied with stainless steel mesh and stainless wire.

Minimum order: 1 unit per dimensional variant.  
1 unit = 1 pallet - part of a full load.  
22 pallets per vehicle.

\* VDI 2055 monitored.

See the data sheet for current and complete specifications.  
www.knaufinsulation-process-solutions.com



# Product overview - Industrial insulation

## Wired Mats

### WM 660



Thickness (mm)	Length (mm)	Width (mm)	Area (m <sup>2</sup> )	Rolls per pallet
30	6000	500	3.00	45
30	6000	1000	6.00	21
40	5000	500	2.50	45
40	5000	1000	5.00	21
50	4000	500	2.00	45
50	4000	1000	4.00	21
60	3000	500	1.50	45
60	3000	1000	3.00	21
70	2500	500	1.25	45
70	2500	1000	2.50	21
80	2500	500	1.25	45
80	2500	1000	2.50	21
90	2000	500	1.00	45
90	2000	1000	2.00	21
100	2000	500	1.00	45
100	2000	1000	2.00	21
120	2000	500	1.00	45
120	2000	1000	2.00	21

#### Properties:

Properties	Symbol	Description/Data	Unit	Test method	Standards
Maximum service temperature	ST(+)	660	°C	EN 14706	AGI Q 132 edition 2006
Thermal conductivity in relation to temperature	ϕ	50 100 200 300	°C	EN 12667 ASTM C177	
	λ	0.040 0.046 0.061 0.080	W/(m·K)		
	ϕ	400 500 600 650	°C		
	λ	0.104 0.134 0.167 0.205	W/(m·K)		
Nominal density	ρ	100	kg/m <sup>3</sup>	EN 1602	
Designation code	–	10.01.03.66.10	–		
AS-Quality	–	≤ 10	ppm	EN13468	
Water absorption	W <sub>p</sub>	≤ 1,0	kg/m <sup>2</sup>	EN 1609	
Silicone free	–	Produced without addition of silicone oil	–		
Reaction to fire	–	A1	–	EN13820	EN 13501-1
Melting point of fibres	–	≥ 1000	°C	DIN 4102-17	DIN 4102-17
Water vapour diffusion resistance value	r	1	k Pa·s/m <sup>2</sup>	EN 12086	
Wire mesh Wire	μ	25 mm x 0,7 mm 0,3 mm	–	EN 10223-2	AGI Q 132

#### Description:

Wired Mat WM 660 is a high density, non-combustible rock mineral wool mat. Wired Mat WM 660 GG is supplied with galvanized steel mesh and stitched with galvanized steel wire. The mesh makes the wired mat a firm, but flexible insulation mattress, withstanding high operating temperatures.

#### Application:

Wired Mat WM 660 is recommended for thermal, acoustic and fire insulation in various industrial and HVAC applications:

<ul style="list-style-type: none"> <li>• Industrial pipe works</li> <li>• Vessels</li> <li>• Columns</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Tanks</li> <li>• Ducts</li> </ul>	<ul style="list-style-type: none"> <li>• Parts like: Elbows, Valves, T-pieces, Reductions, Flanges</li> <li>• Ship building</li> </ul>
<p>Wired Mat WM660 can be used for continuous operating temperatures up to 660 °C, and works particularly well for the insulation of large diameter and high temperature pipe work.</p>		

#### Also available as:

**Wired Mat WM 660 SG**  
can also be supplied with galvanized steel mesh and stainless wire.

**Wired Mat WM 660 S**  
can be supplied with stainless steel mesh and stainless wire.

Minimum order: 1 unit per dimensional variant.  
1 unit = 1 pallet - part of a full load.  
22 pallets per vehicle.

See the data sheet for current and complete specifications.  
[www.knaufinsulation-process-solutions.com](http://www.knaufinsulation-process-solutions.com)



# Product overview - Industrial insulation

## Wired Mats

### WM 680

	Thickness (mm)	Length (mm)	Width (mm)	Area (m <sup>2</sup> )	Rolls per pallet
	30	6000	500	3.00	45
30	6000	1000	6.00	21	
40	5000	1000	5.00	21	
50	4000	500	2.00	45	
50	4000	1000	4.00	21	
60	3000	500	1.50	45	
60	3000	1000	3.00	21	
70	2500	500	1.25	45	
70	2500	1000	2.50	21	
80	2500	500	1.25	45	
80	2500	1000	2.50	21	
90	2000	1000	2.00	21	
100	2000	500	1.00	45	
100	2000	1000	2.00	21	

Properties:							Description:	
Properties	Symbol	Description/Data				Unit	Test method	Standards
Maximum service temperature	ST(+)	680				°C	EN 14706	AGI Q 132 edition 2006
Thermal conductivity in relation to temperature	ϕ	50	100	200	300	°C	EN 12667 ASTM C177	
	λ	0.040	0.047	0.061	0.078	W/(m·K)		
	ϕ	400	500	600	650	°C		
	λ	0.098	0.125	0.159	0.179	W/(m·K)		
Nominal density	ρ	120				kg/m <sup>3</sup>	EN 1602	
Designation code	–	10.01.03.68.12				–		
AS-Quality	–	≤ 10				ppm	EN13468	
Water absorption	W <sub>p</sub>	≤ 1,0				kg/m <sup>2</sup>	EN 1609	
Silicone free	–	Produced without addition of silicone oil				–		
Reaction to fire	–	A1				–	EN13820	EN 13501-1
Melting point of fibres	–	≥ 1000				°C	DIN 4102-17	DIN 4102-17
Water vapour diffusion resistance value	r	1				k Pa·s/m <sup>2</sup>	EN 12086	
Wire mesh Wire	μ	25 mm x 0,7 mm 0,3 mm				–	EN 10223-2	AGI Q 132

**Application:**

Wired Mat WM 680 is recommended for thermal, acoustic and fire insulation in various industrial and HVAC applications:

<ul style="list-style-type: none"> <li>Industrial pipe works</li> <li>Vessels</li> <li>Columns</li> </ul>	<ul style="list-style-type: none"> <li>Boilers</li> <li>Tanks</li> <li>Ducts</li> </ul>	<ul style="list-style-type: none"> <li>Parts like: Elbows, Valves, T-pieces, Reductions, Flanges</li> <li>Ship building</li> </ul>
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Wired Mat WM 680 can be used for continuous operating temperatures up to 680 °C, and works particularly well for the insulation of large diameter and high temperature pipe work.

### Also available as:

**Wired Mat WM 680 SG**  
can also be supplied with galvanized steel mesh and stainless wire.

**Wired Mat WM 680 S**  
can be also supplied with stainless steel mesh and stainless wire.

Minimum order: 1 unit per dimensional variant.  
1 unit = 1 pallet - part of a full load.  
22 pallets per vehicle.

See the data sheet for current and complete specifications.  
[www.knaufinsulation-process-solutions.com](http://www.knaufinsulation-process-solutions.com)



# Industrial insulation

## High Temperature Boards

### High Temperature Boards HTB 350 (D45)



Thickness* (mm)	Density (kg/m <sup>3</sup> )	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m <sup>2</sup> )	Packs per Pallet
100	45	1200	600	5	3.6	12
75	45	1200	600	6	4.32	12
50	45	1200	600	10	7.2	12
40	45	1200	600	12	8.64	12

\*Other dimensions on request.

Properties:					Description:		
Properties	Symbol	Description/Data			Unit	Test method / Standard	
Max Service Temp	ST(+)	350			°C	EN14706	
Thermal conductivity in relation to temperature	ϑ	50	100	150	200	°C	EN 12667
	λ	0.041	0.050	0.062	0.076	W/(m·K)	
	ϑ	250	300	350	-	°C	
	λ	0.094	0.113	0.136	-	W/(m·K)	
AS-Quality*	ρ	≤ 10			kg/m <sup>3</sup>	EN 13468	
Nominal Density	-	45			mg/kg	EN 1602	
Water Absorption	W <sub>p</sub>	≤ 1.0			kg/m <sup>2</sup>	EN 1609	
Reaction to fire	-	A1			-	EN 13501-1	
Melting point of fibres	-	≥ 1000			°C	DIN 4102-17	
Water vapour diffusion resistance value	μ	1			-	EN 12086	
Silicone free	-	Produced without addition of silicone oil			-	-	
Longitudinal air flow resistance	r	≥5,000			-	EN 29053	

Application:		
High Temperature Board HTB 350 (D45) is recommended for applications such as:		
<ul style="list-style-type: none"> <li>• Tanks</li> <li>• Containers</li> <li>• Chimneys</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Vessels</li> <li>• Air handling units</li> </ul>	<ul style="list-style-type: none"> <li>• Machine insulation</li> <li>• Industrial finishing</li> </ul>

Standards:	
High Temperature Board HTB 350 (D45) is manufactured in accordance with BS EN 14303, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas	

\*AS Quality available upon request

Technical data for information purposes only. See datasheet for current specifications



# Industrial insulation

## High Temperature Boards

### High Temperature Boards HTB 550 (D60)



Thickness* (mm)	Density (kg/m <sup>3</sup> )	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m <sup>2</sup> )	Packs per Pallet
100	60	1200	600	4	2.88	12
75	60	1200	600	6	4.32	12
60	60	1200	600	8	5.76	12
50	60	1200	600	9	6.48	12
40	60	1200	600	12	8.64	12
30	60	1200	600	16	11.52	12
25	60	1200	600	18	12.96	12

\*Other dimensions on request.

Properties:					Description:		
Properties	Symbol	Description/Data			Unit	Test method / Standard	
Max Service Temp	ST(+)	550			°C	EN14706	
Thermal conductivity in relation to temperature	ϑ	50	100	200	300	°C	EN 12667
	λ	0.040	0.046	0.067	0.094	W/(m·K)	
	ϑ	400	500	550	-	°C	
	λ	0.130	0.175	0.201	-	W/(m·K)	
AS-Quality*	ρ	≤ 10			kg/m <sup>3</sup>	EN 13468	
Nominal Density	-	60			mg/kg	EN 1602	
Water Absorption	W <sub>p</sub>	≤ 1.0			kg/m <sup>2</sup>	EN 1609	
Reaction to fire	-	A1			-	EN 13501-1	
Melting point of fibres	-	≥ 1000			°C	DIN 4102-17	
Water vapour diffusion resistance value	μ	1			-	EN 12086	
Silicone free	-	Produced without addition of silicone oil			-	-	
Longitudinal air flow resistance	r	≥15,000			-	EN 29053	

Application:		
High Temperature Board HTB 550 (D60) is recommended for applications such as:		
<ul style="list-style-type: none"> <li>• Tanks</li> <li>• Containers</li> <li>• Chimneys</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Vessels</li> <li>• Air handling units</li> </ul>	<ul style="list-style-type: none"> <li>• Machine insulation</li> <li>• Industrial finishing</li> </ul>

Standards:	
High Temperature Board HTB 550 (D60) is manufactured in accordance with BS EN 14303, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas	

\*AS Quality available upon request

Technical data for information purposes only. See datasheet for current specifications



# Industrial insulation

## High Temperature Boards

### High Temperature Boards HTB 640 (D80)



Thickness* (mm)	Density (kg/m <sup>3</sup> )	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m <sup>2</sup> )	Packs per Pallet
100	80	1200	600	3	2.16	16
75	80	1200	600	4	2.88	16
60	80	1200	600	5	3.60	16
50	80	1200	600	6	4.32	16
40	80	1200	600	7	5.04	18

\*Other dimensions on request.

Minimum order: 1 unit per dimensional variant. 1 unit = 1 pallet - part of a full load. 22 pallets per vehicle.

Properties:					Description:		
Properties	Symbol	Description/Data			Unit	Test method / Standard	
Max Service Temp	ST(+)	640			°C	EN14706	
Thermal conductivity in relation to temperature	ϑ	50	100	200	300	°C	EN 12667
	λ	0.040	0.048	0.067	0.093	W/(m·K)	
	ϑ	400	500	600	660	°C	
	λ	0.125	0.166	0.218	0.242	W/(m·K)	
AS-Quality*	ρ	≤ 10			kg/m <sup>3</sup>	EN 13468	
Nominal Density	–	80			mg/kg	EN 1602	
Water Absorption	W <sub>p</sub>	≤ 1.0			kg/m <sup>2</sup>	EN 1609	
Reaction to fire	–	A1			–	EN 13501-1	
Melting point of fibres	–	≥ 1000			°C	DIN 4102-17	
Water vapour diffusion resistance value	μ	1			–	EN 12086	
Silicone free	–	Produced without addition of silicone oil			–	-	
Longitudinal air flow resistance	r	≥ 15,000			–	EN 29053	

Application:		
High Temperature Board HTB 640 (D80) is recommended for applications such as:		
<ul style="list-style-type: none"> <li>• Tanks</li> <li>• Containers</li> <li>• Chimneys</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Vessels</li> <li>• Air handling units</li> </ul>	<ul style="list-style-type: none"> <li>• Machine insulation</li> <li>• Industrial finishing</li> </ul>

Standards:	
High Temperature Board HTB 640 (D80) is manufactured in accordance with BS EN 14303, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas	

\*AS Quality available upon request

Technical data for information purposes only. See datasheet for current specifications



# Industrial insulation

## High Temperature Boards

### High Temperature Boards HTB 660 (D100)



Thickness* (mm)	Density (kg/m <sup>3</sup> )	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m <sup>2</sup> )	Packs per Pallet	Product Category
100	100	1200	600	3	2.16	16	B
75	100	1200	600	4	2.88	16	B
60	100	1200	600	5	3.60	16	B
50	100	1200	600	6	4.32	16	B
40	100	1200	600	6	4.32	20	B
30	100	1200	600	10	7.20	16	B
25	100	1200	600	12	8.64	16	B

\*Other dimensions on request.

#### Properties:

Properties	Symbol	Description/Data	Unit	Test method / Standard
Max Service Temp	ST(+)	660	°C	EN14706
Thermal conductivity in relation to temperature	ϑ	50 100 200 300	°C	EN 12667
	λ	0.040 0.044 0.059 0.078	W/(m·K)	
	ϑ	400 500 600 660	°C	
	λ	0.102 0.132 0.170 0.196	W/(m·K)	
AS-Quality*	ρ	≤ 10	kg/m <sup>3</sup>	EN 13468
Nominal Density	–	100	mg/kg	EN 1602
Water Absorption	W <sub>p</sub>	≤ 1.0	kg/m <sup>2</sup>	EN 1609
Reaction to fire	–	A1	–	EN 13501-1
Melting point of fibres	–	≥ 1000	°C	DIN 4102-17
Water vapour diffusion resistance value	μ	1	–	EN 12086
Silicone free	–	Produced without addition of silicone oil	–	-
Longitudinal air flow resistance	r	≥ 25,000	–	EN 29053

\*AS Quality available upon request

Technical data for information purposes only. See datasheet for current specifications

#### Description:

High Temperature Board HTB 660 (D100) is a non-combustible rock mineral wool board, designed to resist high temperatures and provide thermal and acoustic performance for applications with high operating temperatures up to 660 °C

#### Application:

High Temperature Board HTB 660 (D100) is recommended for applications such as:

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Tanks</li> <li>• Containers</li> <li>• Chimneys</li> </ul> | <ul style="list-style-type: none"> <li>• Boilers</li> <li>• Vessels</li> <li>• Air handling units</li> </ul> | <ul style="list-style-type: none"> <li>• Machine insulation</li> <li>• Industrial finishing</li> </ul> |
|---|--|--|

#### Standards:

High Temperature Board HTB 660 (D100) is manufactured in accordance with BS EN 14303, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas



# Industrial insulation

## High Temperature Boards

### High Temperature Boards HTB 690 (D140)



Thickness* (mm)	Density (kg/m <sup>3</sup> )	Length (m)	Width (mm)	Slab per Pack	Area per Pack (m <sup>2</sup> )	Packs per Pallet
100	140	1200	600	2	1.44	12
75	140	1200	600	3	2.16	10
50	140	1200	600	4	2.88	12
30	140	1200	600	7	5.04	10

\*Other dimensions on request.

Properties:					Description:		
Properties	Symbol	Description/Data			Unit	Test method / Standard	
Max Service Temp	ST(+)	690			°C	EN14706	
Thermal conductivity in relation to temperature	ϑ	50	100	200	300	°C	EN 12667
	λ	0.037	0.045	0.058	0.073	W/(m·K)	
	ϑ	400	500	600	690	°C	
	λ	0.092	0.113	0.140	0.169	W/(m·K)	
AS-Quality*	ρ	≤ 10			kg/m <sup>3</sup>	EN 13468	
Nominal Density	–	140			mg/kg	EN 1602	
Water Absorption	W <sub>p</sub>	≤ 1.0			kg/m <sup>2</sup>	EN 1609	
Reaction to fire	–	A1			–	EN 13501-1	
Melting point of fibres	–	≥ 1000			°C	DIN 4102-17	
Water vapour diffusion resistance value	μ	1			–	EN 12086	
Silicone free	–	Produced without addition of silicone oil			–	-	
Longitudinal air flow resistance	r	≥ 30,000			–	EN 29053	

Application:	
High Temperature Board HTB 690 (D140) is recommended for applications such as:	
<ul style="list-style-type: none"> <li>• Tanks</li> <li>• Containers</li> <li>• Chimneys</li> </ul>	<ul style="list-style-type: none"> <li>• Boilers</li> <li>• Vessels</li> <li>• Air handling units</li> </ul>
<ul style="list-style-type: none"> <li>• Machine insulation</li> <li>• Industrial finishing</li> </ul>	

Standards:	
High Temperature Board HTB690 (D140) is manufactured in accordance with BS EN 14303, ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, ISO 50001 Energy Management Systems and OHSAS 18001 Occupational Health and Safety Management Systems as certified by Bureau Veritas	

\*AS Quality available upon request

Technical data for information purposes only. See datasheet for current specifications



## Additional Products

Further Technical Solutions available on a supplied to order basis and subject to enquiry, minimum order quantity and lead time.

### Lamella Mat



#### Description:

Lamella Mat Forte is a medium density, non-combustible rock mineral wool roll with a tear resistant glass fibre reinforced aluminium foil. The orientation of the rock mineral wool lamellas ensures good compressive strength, while keeping flexibility and ease of handling.

#### Application:

Lamella Mat Forte is recommended for thermal, sound and acoustic insulation where insulation without supporting structure is required for:

- Industrial pipe works
- Pipelines
- Large containers
- Duct works
- Tanks
- Vessels

### Loose Wool



#### Description:

Loose Wool LW can be used for operating temperatures up to 800 °C and is a non-combustible resin free rock mineral wool. The flexibility of the product allows for installation in irregular shaped constructions and spaces where it is not practical to use a bonded product.

#### Application:

Loose Wool LW is recommended for insulation in applications such as:

- Cavities
- Pipe bends
- Insulation mattresses
- Valve boxes
- Non-regular units
- Areas that are not easy to access

### Felt Mat



#### Description:

Felt Mat is a non-combustible rock mineral wool felt produced with low binder content.

#### Application:

Felt Mat is recommended for the insulation of difficult to access cavities in construction, equipment and industrial plant.

### Fire Cord



#### Description:

Fire Cord is made from resin free, chemically neutral, non-combustible rock mineral wool reinforced with glass fibre thread and is suitable for operating temperatures up to 780 °C.

#### Application:

Fire Cord is suitable for all kinds of cylindrical shaped elements, especially non-standard or non-regular dimensions. It can be used where temperature resistance up to 780 °C is needed especially in industrial applications.

- Fire resistant joints
- Pipe insulation
- Chimneys
- Channels

# **KNAUF**INSULATION

**Technical Solutions**

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KINE3338GID-V0716



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