

TECHNICAL DATA SHEET

Aluminium Foil Encapsulated E- Glass Needlemat **DENM25/H/AL2**

Darco fully encapsulated Aluminium Foil Needlemat insulation comprises 100% selected grade type "E" glass fibres needled together into a mat form. It is non-respirable, incombustible asbestos free and contains no chemical binders. Above all, Darco Needlemat has vibration-resistant properties allowing it to be successfully used for engine exhaust jacketing, turbo covers and silencer packing. Other uses include: seals in the glass industry, oven insulation, industrial furnaces, boilers and kilns and is an exceptional material for use as removable insulation pads for pipes, valves and motors. The aluminium foil coating reflects radiant heat and reduces thermal heat transfer, and it also helps contain itchy E-glass fibres.



Service Temperature Constant Max	600°C
Melting Temp.	800°C
Lineal Shrinkage @ 700°C	
Physiologically Harmless refer MSDS	Yes
Combustibility	Non-combustible to DIN 4102
Filament Diameter	
Break strength (Weft)	
Break strength (Warp)	
Water Absorption	Negligible
Yarn	100 % E Glass to DIN 1259
Coating/Finishes	Aluminium Foil 0.2mm thick.

Product Selection Charts

Code	DENM06	DENM12	DENM25
Thickness mm	6	12	25
Tolerance %	+/-	+/- 2	+/- 2
Width mm	1200	1200	1524
Weight g/m ²	800	2000	4500
Tolerance %	+/-	+/-12	+/-12
Roll length m	50	20	13.7

Thermal Conductivity

W/mk to DIN 52612	0.032	0.04	0.056	0.076	0.111	0.142	0.170
At °C	10	100	200	300	400	500	600

Acoustical absorption value ISO 10 534 – 2

Frequency (Hz)	32	63	125	250	500	1000
Acoustic absorption index	0.15	0.2	0.4	0.9	0.97	1.2

Measured on a 180 Kg/m³ (4500g/m², 25 mm thick) sample

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Chemical Composition	
Silicon dioxide (SiO ₂)	71-78%
Aluminum Oxide (Al ₂ O ₃)	8-16%
Oxocalcium (CaO)	5-13%
Magnesium oxide (MgO)	0-4%
Boric oxide (B ₂ O ₃)	0-4%
Potassium oxide (K ₂ O)	0-0.8%
Sodium oxide (Na ₂ O)	
Ferric Oxide (Fe ₂ O ₃)	0-0.2%