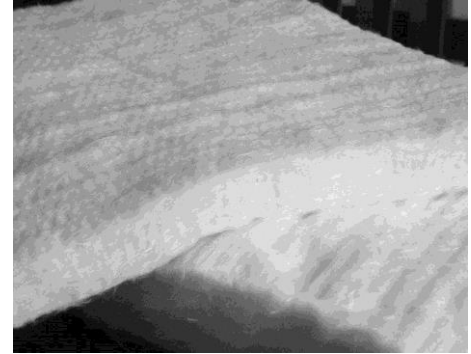


## TECHNICAL DATA SHEET

### E Glass Needlemat style **DENM** series Description and Advantages

Darco style **DENM** series Needlemat insulation is composed of 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.



|                                     |                             |
|-------------------------------------|-----------------------------|
| 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                    | None                        |

#### Product Selection Charts

| Code          | <b>DENM06</b> | <b>DENM12</b> | <b>DENM25</b> |
|---------------|---------------|---------------|---------------|
| Thickness mm  | 6             | 12            | 25            |
| Tolerance %   | +/-           | +/- 2         | +/- 2         |
| Width mm      | 1200          | 1200          | 1524          |
| Weight g/m2   | 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 (4500 g/m2, 25 mm thick) sample

**TECHNICAL DATA SHEET**

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