



## 3228B Artica® black

STOVES&FIREPLACES STOVES&FIREPLACES ST

700°C

### Description

Black Artica® packing is a type of packing made by braiding black “HT” glass filaments, with an internal core to increase the density. The black packing withstands up to 700°C. The unique type of braiding is achieved with needle machines avoid fraying on cutting.

### Applications

Ovens, pellet stoves, wood-burning stoves, fireplaces, direct vent fireplaces, wood stoves and boilers.

#### Standard sizes

| diameter (mm) | rolls (m) |
|---------------|-----------|
| 3             | 500       |
| 4             | 500       |
| 5             | 250       |
| 6             | 200       |
| 8             | 100       |
| 10            | 100       |
| 12            | 50        |
| 15            | 50        |
| 18            | 50        |
| 20            | 50        |

#### Chemical analysis

|                 |                                    |              |
|-----------------|------------------------------------|--------------|
| Aluminium oxide | Al <sub>2</sub> O <sub>3</sub>     | 12 - 16 %    |
| Silicon oxide   | SiO <sub>2</sub>                   | 52 - 56 %    |
| Calcium oxide   | CaO                                | 16 - 25 %    |
| Magnesium oxide | MgO                                | 0 - 5 %      |
| Boron oxide     | B <sub>2</sub> O <sub>3</sub>      | 5 - 10 %     |
| Alkali content  | Na <sub>2</sub> O+K <sub>2</sub> O | 0 - 1 %      |
| Iron oxide      | Fe <sub>2</sub> O <sub>3</sub>     | 0.05 - 0.4 % |
| Titanium oxide  | Ti <sub>1</sub> O <sub>2</sub>     | 0 - 0.8 %    |
| Fluorine        | F <sub>2</sub>                     | 0 - 1 %      |

#### Characteristics of the glass yarn

|   |                      |
|---|----------------------|
| Fibre diameter                                      | 6-9 µm               |
| Colour  | black                |
| <b>Mechanical characteristics of the glass yarn</b> |                      |
| Virgin filament tensile test                        | 34000 MPa<br>493 ksi |
| Impregnated strand tensile test                     | 2400 MPa<br>348 ksi  |
| Tensile modulus                                     | 73 GPa<br>10.5 msi   |
| Toughness   | Min.50 cN/Tex        |
| Elongation at break                                 | 2.2 - 2.5%           |
| Elastic recovery                                    | 100%                 |

#### Electrical characteristics of the glass yarn

|                     |                    |
|---------------------|--------------------|
| Dielectric constant |                    |
| - at 1MHz           | 6.4                |
| - at 1GHz           | 6.13               |
| Loss angle          |                    |
| - at 1MHz           | 0.0018 - 0.0039    |
| - at 1GHz           | 0.0039             |
| Volume resistivity  | 1014 - 1015 Ohm/cm |
| Surface resistivity | 1013 - 1014 Ohm/cm |
| Dielectric strength | 8 - 12 kV/mm       |

#### Thermal characteristics of the glass yarn

|   |                              |
|---|------------------------------|
| Operating temperature                   |                              |
| - black                                 | 700°C                        |
| Linear coefficient of thermal expansion | 5.3 10 <sup>-6</sup> m/m/ °C |
| Specific heat                           |                              |
| - at 20°C                               | 0.764 J/g. °K                |
| - at 200°C                              | 0.958 J/g. °K                |
| Coefficient of thermal conductivity     | 1.0 W/m. °K                  |

The products are classified as non-hazardous in accordance with the European 67/548/EEC standard and its amendments.