

**EPDM\_FDA\_black**
**Ethylene propylene diene rubber**
**Mechanical, Physical and Thermal Properties**

| properties                  | condition | standard     | unit              |        | unit              |        |
|-----------------------------|-----------|--------------|-------------------|--------|-------------------|--------|
| colour                      |           |              |                   | black  |                   | black  |
| hardness                    | 23°C      | ISO 868      | Shore A           | 85 ± 5 | Shore A           | 85 ± 5 |
| modulus 100%                | 23°C      | DIN 53 504   | MPa               | ≥ 5    | psi               | ≥ 725  |
| tensile strength            | 23°C      | DIN 53 504   | MPa               | ≥ 10   | psi               | ≥ 1450 |
| elongation at break         | 23°C      | DIN 53 504   | %                 | ≥85    | %                 | ≥85    |
| tear strength               | 23°C      | DIN ISO 34-1 | kN/m              | ≥ 4    | lbf/inch          | ≥ 23   |
| spec. gravity               | 23°C      | ISO 1183     | kg/m <sup>3</sup> | 1180   | g/cm <sup>3</sup> | 1,18   |
| rebound elasticity          | 23°C      | DIN 53 512   | %                 | 40     | %                 | 40     |
| abrasion                    | 23°C      | DIN 53 516   | mm <sup>3</sup>   | 160    | mm <sup>3</sup>   | 160    |
| compression set             | *         | ISO 815      | %                 | ≤ 10   | %                 | ≤ 10   |
| compression set             | **        | ISO 815      | %                 | ≤ 10   | %                 | ≤ 10   |
| compression set             | ***       | ISO 815      | %                 |        | %                 |        |
| minimum service temperature |           |              | °C                | -45    | °F                | -49    |
| maximum service temperature |           |              | °C                | 130    | °F                | 266    |
| temp. max water/steam       |           |              | °C                | 130    | °F                | 266    |
| temp. max hot air           |           |              | °C                | 150    | °F                | 302    |

\* 24h 70°C 25% def.

\*\* 24h 100°C 25% def.

\*\*\* 24h 150°C 25% def.

**Chemical Properties**

Copolymer, based on ethylene, propylene and diene

Resistant to: (hot) water, acids, bases, ketones, lyes, brake fluids based on polyglycols

Not resistant to: aliphatic, aromatic and chlorinated hydrocarbons, greases and fuels

Foodstuff approval: FDA - conform

**Maximum recommended service temperature (FDA applications): 90°C**