

## T-NBR

### Mechanical, Physical and Thermal Properties

Nitrile butadiene rubber for low temperature applications

| properties                  | condition    | standard     | unit              |        | unit              |        |
|-----------------------------|--------------|--------------|-------------------|--------|-------------------|--------|
| colour                      |              |              |                   | black  |                   | black  |
| hardness                    | 23°C/3 sec.  | ISO 868      | Shore A           | 80 ± 5 | Shore A           | 80 ± 5 |
| hardness                    | 23°C/15 sec. | ISO 868      | Shore A           | 80 ± 5 | Shore A           | 80 ± 5 |
| modulus 100%                | 23°C         | DIN 53 504   | MPa               | ≥ 9    | psi               | ≥ 1305 |
| tensile strength            | 23°C         | DIN 53 504   | MPa               | ≥ 14   | psi               | ≥ 2031 |
| elongation at break         | 23°C         | DIN 53 504   | %                 | ≥ 140  | %                 | ≥ 140  |
| tear strength               | 23°C         | DIN ISO 34-1 | kN/m              | ≥ 15   | lbf/inch          | ≥ 85   |
| spec. gravity               | 23°C         | ISO 1183     | kg/m <sup>3</sup> | 1270   | g/cm <sup>3</sup> | 1,27   |
| rebound elasticity          | 23°C         | DIN 53 512   | %                 | 50     | %                 | 50     |
| abrasion                    | 23°C         | DIN 53 516   | mm <sup>3</sup>   |        | mm <sup>3</sup>   |        |
| compression set             | *            | ISO 815      | %                 | ≤ 6    | %                 | ≤ 6    |
| compression set             | **           | ISO 815      | %                 | ≤ 9    | %                 | ≤ 9    |
| compression set             | ***          | ISO 815      | %                 |        | %                 |        |
| minimum service temperature |              |              | °C                | -50    | °F                | -58    |
| maximum service temperature |              |              | °C                | 110    | °F                | 230    |
| temp. max water/steam       |              |              | °C                |        | °F                |        |
| temp. max hot air           |              |              | °C                |        | °F                |        |

\* 24h 70°C 25% def.

\*\* 24h 100°C 25% def.

\*\*\* 24h 150°C 25% def.

## CHEMICAL PROPERTIES

Copolymer, based on butadiene and acrylonitrile

Resistant to: oil, petrol and crude oil

Not resistant to: conc. Acides, conc. lyes and polar solvents

Detailed information concerning chemical resistance see Chemical Resistance Guide

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