

## H-NBR 312 Explosive Decompression Mechanical, Physical and Thermal Properties

Highly saturated nitrile butadiene rubber

| properties                  | condition    | standard     | unit              | unit   | unit              | unit   |
|-----------------------------|--------------|--------------|-------------------|--------|-------------------|--------|
| colour                      |              |              |                   | black  |                   | black  |
| hardness                    | 23°C/3 sec.  | ISO 868      | Shore A           | 85 ± 5 | Shore A           | 85 ± 5 |
| hardness                    | 23°C/15 sec. | ISO 868      | Shore A           | 83 ± 5 | Shore A           | 83 ± 5 |
| modulus 100%                | 23°C         | DIN 53 504   | MPa               | ≥ 7    | psi               | ≥ 1015 |
| tensile strength            | 23°C         | DIN 53 504   | MPa               | ≥ 17   | psi               | ≥ 2465 |
| elongation at break         | 23°C         | DIN 53 504   | %                 | ≥ 190  | %                 | ≥ 190  |
| tear strength               | 23°C         | DIN ISO 34-1 | kN/m              | ≥ 21   | lbf/inch          | ≥ 119  |
| spec. gravity               | 23°C         | ISO 1183     | kg/m <sup>3</sup> | 1290   | g/cm <sup>3</sup> | 1,29   |
| rebound elasticity          | 23°C         | DIN 53 512   | %                 | 30     | %                 | 30     |
| abrasion                    | 23°C         | DIN 53 516   | mm <sup>3</sup>   | 184    | mm <sup>3</sup>   | 184    |
| compression set             | *            | ISO 815      | %                 | ≤ 17   | %                 | ≤ 17   |
| compression set             | **           | ISO 815      | %                 | ≤ 21   | %                 | ≤ 21   |
| compression set             | ***          | ISO 815      | %                 | ≤ 30   | %                 | ≤ 30   |
| minimum service temperature |              |              | °C                | -15    | °F                | 5      |
| maximum service temperature |              |              | °C                | 150    | °F                | 302    |
| temp. max water/steam       |              |              | °C                | 110    | °F                | 230    |
| temp. max hot air, short    |              |              | °C                | 180    | °F                | 356    |

\* 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, crude oil

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

Detailed information concerning chemical resistance see DMH Chemical Resistance Guide

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