

DMH 311 H-NBR 90 black

Mechanical, Physical and Thermal Properties

Highly saturated nitrile butadiene rubber

| PROPERTIES | CONDITION | STANDARD | UNIT | | UNIT | |
|-----------------------------|--------------|--------------|-------------------|--------|-------------------|--------|
| Colour | | | | black | | black |
| hardness | 23°C/3 sek. | ISO 868 | Shore A | 90 ± 5 | Shore A | 90 ± 5 |
| hardness | 23°C/15 sek. | ISO 868 | Shore A | 88 ± 5 | Shore A | 88 ± 5 |
| modulus 100% | 23°C | DIN 53 504 | MPa | ≥ 6 | psi | ≥ 870 |
| tensile strength | 23°C | DIN 53 504 | MPa | ≥ 9 | psi | ≥ 1305 |
| elongation at break | 23°C | DIN 53 504 | % | ≥ 170 | % | ≥ 170 |
| tear strength | 23°C | DIN ISO 34-1 | kN/m | ≥ 14 | lbf/inch | ≥ 80 |
| spec. gravity | 23°C | ISO 1183 | kg/m ³ | ≥ 1480 | g/cm ³ | ≥ 1,48 |
| rebound elasticity | 23°C | DIN 53 512 | % | 30 | % | 30 |
| abrasion | 23°C | DIN 53 516 | mm ³ | 130 | mm ³ | 130 |
| compression set | * | ISO 815 | % | ≤ 26 | % | ≤ 26 |
| compression set | ** | ISO 815 | % | ≤ 32 | % | ≤ 32 |
| compression set | *** | ISO 815 | % | | % | |
| minimum service temperature | | | °C | -20 | °F | -4 |
| maximum service temperature | | | °C | 150 | °F | 302 |
| temp. max water/steam | | | °C | 120 | °F | 248 |
| temp. max hot air | | | °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

| | |
|---------------------------|---|
| Foodstuff approval | FDA compliant Maximum recommended service temperature (FDA applications): 90°C |
| revision: 05-2024 | |

Detailed information concerning chemical resistance see DMH Chemical Resistance Guide

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