

## NBR 85 Shore A black

### Acryl Nitrile Butadiene Rubber

NBR has very good elastic properties and high extrusion strength, good turnability and low tool abrasion. Often used for O-rings, wipers and shaft rings.

#### Mechanical, physical and thermal properties

Material code: 0200H

| Properties                  | Condition                 | Standard                    | Unit              | Unit             |                   |       |
|-----------------------------|---------------------------|-----------------------------|-------------------|------------------|-------------------|-------|
| Color                       |                           |                             |                   | black            |                   |       |
| Hardness                    | 23°C/3sec.<br>23°C/15sec. | ISO 868                     | Shore A           | 85 ± 5<br>83 ± 5 |                   |       |
| Modulus 100%                | 23°C                      | DIN 53 504                  | MPa               | ≥11              | psi               | ≥1595 |
| Modulus 300%                | 23°C                      | DIN 53 504                  | MPa               |                  | psi               | ≥2465 |
| Tensile strength            | 23°C                      | DIN 53 504                  | MPa               | ≥17              | psi               | ≥6530 |
| Elongation at break         | 23°C                      | DIN 53 504                  | %                 | ≥150             |                   |       |
| Tear strength               | 23°C                      | DIN ISO 34-1                | kN/m              | ≥18              | lbf/inch          | ≥102  |
| Specific gravity            | 23°C                      | ISO 1183                    | kg/m <sup>3</sup> | 1280             | g/cm <sup>3</sup> | 1,28  |
| Rebound Elasticity          |                           | DIN53 512                   | %                 | 20               |                   |       |
| Abrasion                    | 23°C                      | DIN 53 516                  | mm <sup>3</sup>   | 100              |                   |       |
| Compression set             | *                         | ISO 815                     | %                 | ≤5               |                   |       |
| Compression set             | **                        | ISO 815                     | %                 | ≤6               |                   |       |
| Minimum service temperature |                           |                             | °C                | -30              | °F                | -22   |
| Maximum service temperature |                           |                             | °C                | 110              | °F                | 230   |
| *24h 70°C 25% deflection    |                           | ** 24h 100°C 25% deflection |                   |                  |                   |       |

**Resistant to:** propane, butane, petrol, mineral oils, greases, vegetable and animal fats, HFA, HFB and HFC fluids, diluted acids, bases and salt solutions

**Not resistant to:** aromatic hydrocarbons, chlorinated hydrocarbons, polar solvents, conc. Acids, glycol-based brake fluid, ozone, weathering and aging