

Datenblatt | Data sheet

Rubber ball EPDM

The balls made of terpolymer EPDM have good resistance to heat, aging, atmospheric phenomena and UV rays, as well as good behavior at low temperatures. They are also available with peroxide crosslinking agent.

Field of application

They are used in various industrial applications, almost always as a sealing element or valve ball. They are also used in environmental devices and applications exposed to weathering.

Corrosion resistance

EPDM rubber is resistant to water, steam, ozone, alkalis, alcohols, ketones, esters, glycols, salt solutions and substances with oxidizing effect, weak acids, detergents and many organic and inorganic bases. Unsuitable for contact with gasoline, diesel oil, greases, mineral oils and aliphatic, aromatic and chlorinated hydrocarbons.

Material

| Technical name | Alternative Name | Abbreviation |
|----------------------------------|------------------|--------------|
| Ethylene-propylene-diene monomer | Buna-EP | EPDM |

Physical / mechanical / thermal / electrical / magnetic characteristics

| Characteristic | Symbol | Unit | Type | Note | Value |
|---|-----------|-----------------------|------------|----------------------------------|--------------------|
| Density | δ | g/cm ³ | Physical | Environmental temp. | 1,20 |
| Modulus of elasticity | E | MPa | Mechanical | - | 8 |
| Elongation at break | A | % | Mechanical | Environmental temp. | ≤ 600 |
| Compression set | - | % | Mechanical | Environmental temp. | 35 |
| Coefficient of friction | μ | - | Mechanical | Environmental temp. | 0,50 |
| Linear coefficient of thermal expansion | α | 10 ⁻⁶ /°C | Thermal | ($\Delta T = 0 - 100^\circ C$) | 165 |
| Thermal conductivity | λ | W/(m*K) | Thermal | Environmental temp. | 0,15 |
| Electrical resistivity | ρ | $\Omega \cdot mm^2/m$ | Electrical | - | > 10 ²¹ |
| Relative magnetic permeability | μ | - | Magnetic | Diamagnetic | < -1 |

Technical characteristics

| Characteristic | Type | Unit | Type | Unit | Value |
|------------------------|------------|---------|-----------|-----------------------|-------------|
| Hardness | Mechanical | Shore A | 75 - 90 | - | - |
| Break load in traction | Mechanical | MPa | 11 - 15 | psi * 10 ³ | 1,60 - 2,18 |
| Operating temperature | Thermal | ° C | -30 - 130 | ° F | -22 - 266 |

Available with

| Diameter min/max (mm) | Diameter min/max (in) | Precision grade |
|-----------------------|-----------------------|-----------------|
| 1,000 - 152,400 | 3/64 - 6 | III |