

Introduction

- Oring cord is a special oring used for sealing parts with non standard. It is excellent for large diameter static application
- Nitrile O-Ring cord is a continuous length of extruded cord which allows for the fabrication of custom sizes of an O-Ring for a particular sealing application.
- Nitrile O-Ring cord can be bonded using certain cyanoacrylic bonding agents.
- Nitrile O-Ring cord is supplied by the metre and can be cut to any length.
- Particularly due to the weakness in the join where a length of cord is joined, it is recommended that custom fabricated Cord O-Rings are only used in static applications.
- Used in a wide variety of applications that require a custom sealing solution.
- O-Rings should be not used in dynamic sealing applications.

Applications

Assembly of large tubes
Cover sealing
Lid sealing
Site repair using a custom-made lengthening joint
Tanks

Materials

NBR 70 Shore A
EPDM 70 Shore A
FKM 70 Shore A

NBR (Nitrile Butadiene Rubber)

Nitrile rubber (NBR) is the general term for acrylonitrile-butadiene copolymer. The ACN content can vary between 18% and 50%. While the acrylonitrile content is important, the resistance to oil and fuel is more so. Conversely, the elasticity and compression set are not as good. The NBR has good mechanical properties and good wear resistance. However, its resistance to atmospheric agents and the ozone is relatively low.

Chemical resistance:	Aliphatic hydrocarbons (propane, butane, petroleum, diesel fuel) Mineral oils and greases Fire-resistant fluids (HFA, HFB and HFC) Diluted acids, low-temperature alkaline and saline solutions Water (up to +100°C max)
Compatibility issue:	Fuels with high aromatic content Aromatic hydrocarbons (benzene) Chlorinated hydrocarbons (trichlorethylene) Polar solvents (ketone, acetone, acetic acid, ethylene-ester) Strong acids Glycol-based brake fluids Atmospheric and ozone agents
Temperature range:	-30°C/+120°C

EPDM (Ethylene Propylene Diene Monomer rubber)

As an Ethylene Propylene Diene Monomer copolymer, EPDM is commonly used for hot water taps, cooling systems, brake systems, dishwashers and washing machines.

Chemical resistance:	Hot water and steam up to +150°C Glycol-based brake fluids (Dot 3 & 4) and silicone-based brake fluids (Dot 5) Organic and inorganic acids Cleaning agents, sodium and potassium alkalis Hydraulic fluids (HFD-R) Silicone oils and greases Polar solvents (alcohols, ketones and esters) Atmospheric and ozone agents
Compatibility issue:	Mineral oils and greases Hydrocarbons Low impermeability to gas
Temperature	-45°C / +150°C (short-term peak)

range: at +175°C)

FKM (fluorinated rubber)

Depending on their structure and fluorine content, the chemical resistance and resistance to the cold in fluororubbers can vary. This FKM-based rubber is very often used for high-temperature hydraulics and pneumatics, for industrial valves, injection/fuel systems, motor seals and high-vacuum systems.

Chemical resistance:	Mineral oils and greases, ASTM n°1, IRM 902 and IRM 903 oils. Fire-resistant liquids (HFD) Silicone oils and greases Mineral and vegetable oils and greases Aliphatic hydrocarbons (propane, butane, petroleum) Aromatic hydrocarbons (benzene, toluene) Chlorinated hydrocarbons (trichlorethylene) Fuel (including high alcohol content) Atmospheric and ozone agents
Compatibility issue:	Glycol-based brake fluids Ammonia gas Organic acids with a low molecular weight (formic and acetic acids)
Temperature range:	-20°C / +200°C (short-term peak at +230°C) -40°C / +200°C with particular FKMs

Cross-section Ød2	Tolerances
0.00 < Ød2 ≤ 1.50	± 0.25
1.50 < Ød2 ≤ 2.50	± 0.35
2.50 < Ød2 ≤ 4.00	± 0.40
4.00 < Ød2 ≤ 6.30	± 0.50
6.30 < Ød2 ≤ 10.00	± 0.70
10.00 < Ød2 ≤ 16.00	± 0.80
16.00 < Ød2 ≤ 25.00	± 1.00
25.00 < Ød2 ≤ 40.00	± 1.30
40.00 < Ød2 ≤ 63.00	± 1.60
63.00 < Ød2 ≤ 100.00	± 2.00

Tolerances on the inside diameter Ød1 of the O'Ring

Tolerances on the inside diameter Ød1 of the O'Ring, in line with standard ISO 3601-1:2008.

Tolerances on the cross-section Ød2 of the O'Ring

The tolerances on standardised cross-sections Ød2 are set out in the table below.

Material	Cross-section Ød2	Tolerance ±
EPDM 70 Shore A	1,50	±0,25
EPDM 70 Shore A	1,55	±0,35
EPDM 70 Shore A	1,60	±0,35
EPDM 70 Shore A	1,78	±0,35
EPDM 70 Shore A	2,00	±0,35
EPDM 70 Shore A	2,40	±0,35
EPDM 70 Shore A	2,50	±0,35
EPDM 70 Shore A	2,62	±0,40
EPDM 70 Shore A	3,00	±0,40
EPDM 70 Shore A	3,20	±0,40
EPDM 70 Shore A	3,50	±0,40
EPDM 70 Shore A	4,00	±0,40
EPDM 70 Shore A	4,50	±0,50
EPDM 70 Shore A	5,00	±0,50
EPDM 70 Shore A	5,33	±0,50
EPDM 70 Shore A	5,70	±0,50
EPDM 70 Shore A	6,00	±0,50
EPDM 70 Shore A	6,35	±0,70
EPDM 70 Shore A	6,50	±0,70
EPDM 70 Shore A	7,00	±0,70
EPDM 70 Shore A	7,50	±0,70
EPDM 70 Shore A	8,00	±0,70
EPDM 70 Shore A	8,40	±0,70
EPDM 70 Shore A	9,00	±0,70
EPDM 70 Shore A	10,00	±0,70
EPDM 70 Shore A	11,00	±0,80
EPDM 70 Shore A	12,00	±0,80
EPDM 70 Shore A	13,00	±0,80
EPDM 70 Shore A	14,00	±0,80
EPDM 70 Shore A	15,00	±0,80
EPDM 70 Shore A	18,00	±1,00

EPDM 70 Shore A	20,00	±1,00
FKM 70 Shore A	1,50	±0,25
FKM 70 Shore A	1,60	±0,35
FKM 70 Shore A	1,78	±0,35
FKM 70 Shore A	2,00	±0,35
FKM 70 Shore A	2,40	±0,35
FKM 70 Shore A	2,50	±0,35
FKM 70 Shore A	2,62	±0,40
FKM 70 Shore A	3,00	±0,40
FKM 70 Shore A	3,17	±0,40
FKM 70 Shore A	3,20	±0,40
FKM 70 Shore A	3,53	±0,40
FKM 70 Shore A	4,00	±0,40
FKM 70 Shore A	4,50	±0,50
FKM 70 Shore A	5,00	±0,50
FKM 70 Shore A	5,33	±0,50
FKM 70 Shore A	5,70	±0,50
FKM 70 Shore A	6,00	±0,50
FKM 70 Shore A	6,35	±0,70
FKM 70 Shore A	7,00	±0,70
FKM 70 Shore A	7,50	±0,70
FKM 70 Shore A	8,00	±0,70
FKM 70 Shore A	8,40	±0,70
FKM 70 Shore A	9,00	±0,70
FKM 70 Shore A	9,50	±0,70
FKM 70 Shore A	10,00	±0,70
FKM 70 Shore A	11,00	±0,80
FKM 70 Shore A	12,00	±0,80
FKM 70 Shore A	13,00	±0,80
FKM 70 Shore A	14,00	±0,80
FKM 70 Shore A	15,00	±0,80
FKM 70 Shore A	16,00	±0,80
FKM 70 Shore A	18,00	±1,00
FKM 70 Shore A	20,00	±1,00

FKM 70 Shore A	25,00	±1,00
NBR 70 Shore A	1,50	±0,25
NBR 70 Shore A	1,55	±0,35
NBR 70 Shore A	1,60	±0,35
NBR 70 Shore A	1,78	±0,35
NBR 70 Shore A	2,00	±0,35
NBR 70 Shore A	2,40	±0,35
NBR 70 Shore A	2,50	±0,35
NBR 70 Shore A	2,62	±0,40
NBR 70 Shore A	3,00	±0,40
NBR 70 Shore A	3,17	±0,40
NBR 70 Shore A	3,20	±0,40
NBR 70 Shore A	3,50	±0,40
NBR 70 Shore A	3,53	±0,40
NBR 70 Shore A	4,00	±0,40
NBR 70 Shore A	4,50	±0,50
NBR 70 Shore A	5,00	±0,50
NBR 70 Shore A	5,33	±0,50
NBR 70 Shore A	5,50	±0,50
NBR 70 Shore A	5,70	±0,50
NBR 70 Shore A	6,00	±0,50
NBR 70 Shore A	6,35	±0,70
NBR 70 Shore A	6,50	±0,70
NBR 70 Shore A	6,99	±0,70
NBR 70 Shore A	7,00	±0,70
NBR 70 Shore A	7,50	±0,70
NBR 70 Shore A	8,00	±0,70
NBR 70 Shore A	8,40	±0,70
NBR 70 Shore A	8,50	±0,70
NBR 70 Shore A	9,00	±0,70
NBR 70 Shore A	9,50	±0,70
NBR 70 Shore A	10,00	±0,70
NBR 70 Shore A	10,50	±0,80
NBR 70 Shore A	11,00	±0,80

ORC Oring Cord

NBR 70 Shore A

12,00

±0,80