



Garlast® 1075 Perfluoroelastomer

Overview

Garlast® 1075 has excellent chemical corrosion resistance, including organic and inorganic acids, alkalis, esters, ethers, and ketones, aldehydes, superheated water and water vapor, etc. The maximum operating temperature is 230°C.

Garlast® 1075 can be processed into O-rings, diaphragms, gaskets, rubber strips, adhesive plates and customized products for customers.

Application Equipment

- Mechanical seals
- Pumps
- Valves
- Compressors
- Centrifuges
- Metering and control instrumentation
- Reactors
- Agitators and grinders
- Analytical instruments
- Spraying equipment

Color

Black

Mechanical properties

Hardness ¹	Shore A	78
100% constant tensile stress ²	MPa	15.0
Tensile strength ²	MPa	22.1
Elongation at break ²	%	139
Compression set deformation ³ , 70h×204°C	%	23

1. ASTM D2240
2. ASTM D412, 500mm/min
3. ASTM D395B, 214-O-RING

Chemical media resistance

Chemical media	Media resistant grade
Aromatic hydrocarbon-based / aliphatic hydrocarbon-based oils	++++
Acid	++++
Alkali	++++
alcohol	++++
Aldehyde	++++
Amine	+++
Ether	++++
esters	++++
Ketones	++++
Superheated water, water vapor	++++
Strong oxidant	++
Ethylene oxide / propylene oxide	++++
Hot air	+++

- ++++ = Excellent
 +++ = Good
 ++ = Fair
 + = Poor
 × = N/A



Garlast® 1075 Chemical Media Resistance

Chemical media	Soaking temperature °C	Soak time (h)	Tensile strength variation %	Elongation change (%)	Hardness variation Shore A	Volume expansion %
Polar Solvents						
Acetone acetone	23	168	-7	+6	-1	1.3
Methyl ethyl ketone (MEK).	23	168	-5	+5	0	0.8
Ethyl acetate	23	168	-10	-6	0	1.2
Isopropyl alcohol (IPA).	70	168	-11	+1	-2	1.6
MPA Methylpropanol Acetate	23	168	-5	+2	-1	0.1
Toluene toluene	70	168	-14	+10	-4	0.1
MIBK Methylisobutanone	120	168	-28	+6	-5	4.1
Acetonitrile acetonitrile	23	168	-12	+8	-2	0.5
DMF N,N-dimethylformamide	150	168	-18	-20	-3	7.4
Fluorine Fluids						
HFA 123 Mobil Aviation Hydraulic Fluid HFA	23	720	-79	-54	-11	30.0
Halothane halothane (22 trifluorochlorobromoethane).	23	168	-53	-75	-5	17.0
Galden HT135 Heat Transfer Fluid	100	168				60.0
Galden ZT130/ HT135 Heat Transfer Fluid 50/50	100	168	-79	-63	-8	54.0
Other Fluids						
Methylcyclohexane Methylcyclohexane	23	168	-4	-5	0	0.3
Kerosene kerosene	150	168	-21	-4	-1	4.0
Fuel C	40	504				6.0
Fuel C + Methanol Methanol 85/15	40	504				5.0
Fuel C + MTBE Methyl tert-butyl ether (MTBE) 85/15	40	504				7.0
ASTM 3# + Benzylamine 1%	160	72	-25	-38	+2	2.9
Chlorobenzene chlorobenzene	100	168	-1	+5	-1	2.8
1,2 Dichlorobenzene 1, Dichlorobenzene	180	168	-13	-1	-2	5.7
Phenol	220	168	-15	+10	-1	4.7
Ethylene Oxide	23	168	-24	+7	-3	1.5
Petroleum oil	235	168	-24	+17	-2	2.8



Garlast® 1075 Chemical Media Resistance

Chemical media	Soaking temperature °C	When the soaking time is small	Tensile strength variation %	Tear off the elongation variation %	Hardness variation Shore A	Volume expansion %
Polar Solvents						
Acetone	23	168	-7	+6	-1	1.3
Methyl ethyl ketone (MEK).	23	168	-5	+5	0	0.8
Ethyl acetate	23	168	-10	-6	0	1.2
Isopropyl alcohol (IPA).	70	168	-11	+1	-2	1.6
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Galden ZT130/ HT135 Heat Transfer Fluid 50/50	100	168	-79	-63	-8	54.0
Other Fluids						
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Kerosene	150	168	-21	-4	-1	4.0
Fuel C	40	504				6.0
Fuel C + Methanol Methanol 85/15	40	504				5.0
Fuel C + MTBE Methyl Tertiobutyl Ether 85/15	40	504				7.0
ASTM 3# + Benzylamine 1%	160	72	-25	-38	+2	2.9
Chlorobenzene	100	168	-1	+5	-1	2.8
1,2 Dichlorobenzene 1, Dichlorobenzene	180	168	-13	-1	-2	5.7
Phenol	220	168	-15	+10	-1	4.7
Ethylene Oxide	23	168	-24	+7	-3	1.5
Petroleum oil	235	168	-24	+17	-2	2.8