AFLAS® is excellent in the chemical resistance against acids and bases. AFLAS® stands out in extreme conditions at high temperatures and high concentrations in aqueous and non-aqueous environments, which is of increasing importance as equipment continues to be offered with longer guarantees of service life.

● Immersion Test

AFLAS® keeps its original shape after immersion in various chemicals.

O-ring immersed in 28% ammonia water (25˚C, 1,000 hours)

Notice
1) The statements and data given in this publication are believed to be accurate. Although they are presented without any guarantee or warranty, express or implied, Statements or suggestions regarding the use of these products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated.

2) Please refer to the MSDS (Material Safety Data Sheet) for safety and details.

3) This product is not designed for use in the implantation of the human body or for medical applications that come in contact with body fluid or body tissues. AGCHGLASS CO., LTD. cannot be held responsible for the fitness of the product for any medical applications.

4) The contents are subject to change without prior notice.
Resistant to acid, alkali, amine, and steam.

**AFLAS®** supports your systems/products in the tough environment.

AFLAS® is a fluoroelastomer, which was commercialized in 1975 by the unique technologies of Asahi Glass Co., Ltd. AFLAS® is based on an alternating copolymer of tetrafluoroethylene and propylene, which provides unique characteristics in that it offers (1) excellent heat resistance with a continuous service temperature of 200°C and a maximum peak exposure temperature of 250°C, (2) outstanding chemical resistance with no or little deterioration even in contact with strong acids and bases at high temperatures, (3) excellent steam resistance and (4) high electrical resistivity of the order of $10^{15}$~$10^{16}$Ω·cm. AFLAS® has been distributed worldwide and used in a wide variety of industrial fields where high reliability is required.

### AFLAS® Features

- **Heat Resistance**
  - Fluoroelastomers have the highest heat resistance among synthetic rubbers, and AFLAS® also has excellent heat resistance.

- **Electric Insulation Properties**
  - Possesses excellent electric insulation properties comparable to the silicone rubber and ethylene-propylene rubber. This is a big advantage over other fluoroelastomers.

- **Chemical Resistance (Strong and Base)**
  - Resistant against aqueous and non-aqueous acids and bases even at high temperatures and high concentrations. Distinguished for the base resistance among fluoroelastomers.

- **Chemical Resistance (Non-polar solvent)**
  - Exhibits a relatively large volume change in gasoline, hydrocarbon-based solvents, and chlorine-based solvents.

- **Steam Resistance**
  - Resistant against the high-temperature steam and hot water.

- **Low Outgassing**
  - Suitable for precision parts due to a very low level of outgassing.

- **Gas Barrier Properties**
  - Exhibits excellent gas barrier properties among synthetic rubbers.

- **Low Temperature Properties**
  - AFLAS® shows a fairly low brittleness temperature. Flexibility is lost but the physical properties are maintained at low temperatures.

### AFLAS® Applications

- **O-Ring and Gasket**
  - AFLAS® has excellent heat resistance and chemical resistance, and is used as sealing parts for equipment in chemical plants, downhole applications, and food processing.

- **Liquid Crystal and Semiconductor Manufacturing Process**
  - AFLAS® is resistant against aqueous caustic soda, ammonia water, and alkaline chemicals (such as TMAH and NMP) used on liquid crystal and semiconductor manufacturing lines.

- **Wire and Cable**
  - AFLAS® has superior electric insulation properties, heat resistance and mechanical strength, which enables thinner wires for larger electric currents. Accordingly, AFLAS® is applied to motor cables of the bullet train.

- **Oil seal**
  - Oils and lubricants for automotive contain amine-based additives. AFLAS® is used for oil seals resistant under the conditions of high temperatures.

### AFLAS® Product Lineup

- **AFLAS® 150 Series**
  - Standard Grade
  - Excellent in chemical resistance and electric insulation properties. Suitable for compression molding and extrusion molding.

- **AFLAS® 100 Series**
  - High Strength Grade
  - High mechanical strength is given by the extremely high molecular weight. Molecular structure is the same as the AFLAS® 150 series.

- **AFLAS® 200 Series**
  - Standard Grade
  - Balanced low-temperature properties and chemical resistance. Improved in the flexibility of the AFLAS® 100/150 series at low temperatures. Excellent processability for the compression molding and injection molding.

- **AFLAS® 300 Series**
  - Standard Grade
  - Surface improvement for extrusion
  - Improved curability and extrusion processability with its special termonomer. It also gives low die-swell, good dimensional stability of molded parts and smooth surface finish.