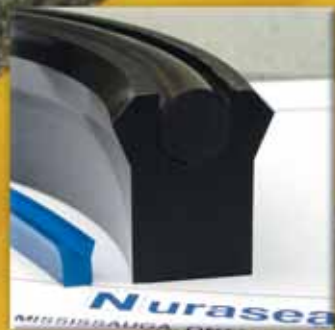


# Large Diameter Sealing Solutions



# Nuraseal

Co. Ltd.

## Advantages of Polyurethane

- Extremely durable - resists abrasion, cutting, tearing and shearing
- Superior tensile strength
- Excellent shelf life - will not harden or crack over time
- Excellent impact resistance and quick rebound - well suited for high frequency vibration applications
- Highly resistant to cracking under repeated flexing in both hot and cold conditions as well as applications subjected to thermal shocks
- Resists swelling and deterioration in water applications up to 70°C (158°F)
- Resists radiation and ozone deterioration - well suited for nuclear applications

# Specializing in Large Diameter Sealing Solutions

## Nuraseal Offers A Wide Range of Profiles,

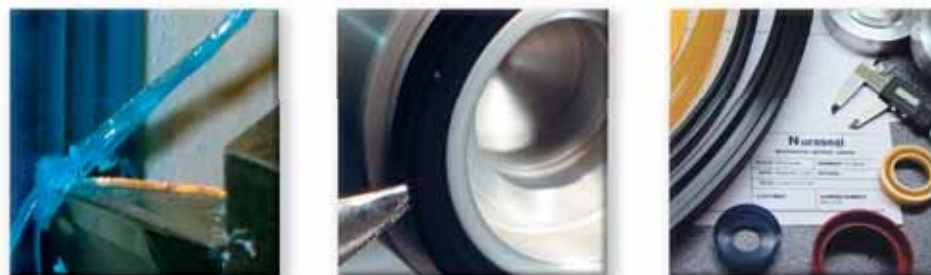
We provide large diameter seals including standard symmetrical U-cups, loaded seals, thin-lip U-cups and duo-durometer U-cups. All have knife trimmed, back bevel or straight lips. We also manufacture custom profiles including feathered and asymmetrical lip designs. Seals are available in both imperial and metric sizes with more than 1200 molds for large diameter U-cup seals up to 32½" OD and manufacturing capabilities for seals up to 34" OD with our in-house, low cost tooling.

## Delivery to Meet Your Needs,

We excel in rapid delivery and flexible manufacturing. With small batch capabilities, we are able to provide a wide range of seals in an extremely short amount of time. Our standard delivery times are 1 to 2 weeks for tooled products, but expedited deliveries in as little as 2 days are available. In emergency situations, we can ship a molded part in as little as 24 hours.

## Quality Polyurethane Materials,

Our polyurethanes offer high tensile strength, excellent abrasion resistance, unlimited shelf life, excellent hydrolytic stability, pressures up to 5000 psi and service temperatures up to 200°F. Our standard material is a thermoset, polyether type polyurethane available in two durometers: 92 ShoreA and 95 ShoreA. We also offer a custom duo-durometer seal which features a 70 Shore D base material chemically bonded to a standard lip material. This unique construction allows for increased extrusion resistance at the base with excellent sealing capabilities at the lip.



## In-House Tooling,

Our computer-aided design system means faster prototyping and manufacturing turnaround. With in-house tooling facilities, we are able to decrease production times and manage tooling costs. For all custom parts, we can produce samples in as little as 24 hours which are actual molded parts identical to any future production runs. Tooling costs start at \$50.00, allowing very competitive small batch runs even for small parts. When we make a mold, the cost also includes small modifications that may be necessary for fine tuning the characteristics of the final seal design in your application.

## A Dedicated Focus on Customer Service,

Whether you require technical support, drawings or just some general information about seals and sealing materials, we will be able to help you with your questions. We offer flexible, fast and convenient solutions for large diameter sealing applications at an economical cost.

## And Custom Molding Capabilities.

We are pleased to supply private branded components on request complete with customer names, part numbers and colour variations. We are able to mold polyurethane directly to substrates including steel, aluminum and various plastics. Also ask us about other custom molded products available from Nuraseal including bumpers, wheels, flanges, bushings and scrapers.



# Chemical Compatibility of Polyurethane

# About Nuraseal

FLUID	RATING	FLUID	RATING
Acetic Acid	Good-Fair	Hexane	Excellent
Aluminum Chloride	Good	Hydraulic Oils	Excellent
Aluminum Sulphide	Good	Hydrochloric Acid 20%	Good
Ammonia	Good	Hydrogen	Excellent-Good
Ammonium Hydroxide	Excellent-Good	Hydrogen Peroxide	Good
Ammonium Sulphate	Good	Isooctane	Good
Amyl Alcohol	Fair	Isopropyl Alcohol	Good-Fair
ASTM Oil No.1	Excellent-Good	Isopropyl Ether	Good
ASTM Oil No.2	Good	Kerosene	Good
ASTM Oil No.3	Good	Lactic Acid	Good
ASTM Reference Fuel A	Excellent	Linseed Oil	Good
ASTM Reference Fuel B	Good	Lubricating Oil	Good
Atlantic Oil	Excellent	Magnesium Hydroxide	Excellent
Barium Hydroxide	Excellent	Magnesium Salts	Good
Benzine (Gasoline, Aromatic)	Good-Fair	Mercury	Excellent-Good
Boric Acid	Excellent	Mil-D-5606 Oil	Fair
Bromine	Good-Fair	Mil-L-7808	Excellent-Good
Bunker Oil	Excellent-Good	Mineral Oil	Excellent
Butane	Excellent	Napthalene	Good
Calcium Chloride	Excellent	Natural Gas	Good
Calcium Hydroxide	Excellent	Oleic Acid	Excellent-Good
Carbon Dioxide	Excellent	Palmitic Acid	Excellent
Carbon Monoxide	Excellent	Petroleum	Excellent-Good
Carbon Tetrachloride	Fair	Phosphoric Acid Dil.	Good-Fair
Castor Oil	Excellent-Good	Phosphoric Acid Conc.	Fair
Chlorine	Good-Fair	Potassium Salts	Good
Citric Acid	Good	SAE #10 Oil	Excellent
Cottonseed Oil	Excellent	Soap	Good-Fair
Cyclohexane	Good	Sodium Dichromate	Good
Diester Oil	Good	Sodium Hydroxide 45%	Good
DTE Oil (Heavy, Medium)	Good	Spermy Oil	Good
Ethyl Alcohol (Ethanol)	Fair	Sulphur Dioxide	Good
Ethyl Chloride	Fair	Tannic Acid 10%	Excellent
Ethylene Glycol	Fair	Tartaric Acid	Excellent
Ferric Chloride	Good	Transformer Oil	Good-Fair
Formaldehyde	Fair	Triethanol Amine	Good
Freon, 12 or 113	Excellent	Trisodium Phosphate	Good
Fuel Oil	Good	Turpentine	Fair
Gasoline	Good	Water	Good
Glycerine (Glycerol)	Excellent	Xylene	Fair
Greases	Excellent-Good	Zinc Chloride	Good

For nearly three decades, Nuraseal has been supplying premium quality polyurethane seals to customers throughout North America and abroad. You can count on Nuraseal to design and to produce the right products to meet your needs in a timely fashion and for an economical cost.

With our in-house computer-aided design system and our tooling facilities, we offer fast prototyping and production turnaround times. Our customized manufacturing processes also allow for small and large quantity production runs at a cost-effective price. Large, small or somewhere in-between, every job we do is treated with the same dedication, care and precision that you demand for all of your applications.

**Contact us  
to find out how we can  
help you today !**

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\* **Note:** This compatibility chart is intended as a quick reference guide. We recommend testing under actual conditions to ensure compatibility. The ratings apply to tests in which samples were immersed for approximately seven days at 75°C and is determined by the volume change according to the following scale: Excellent (0-3% change), Good (4-15%), Fair (16-35%), Poor (36% and up).

The information, data and tables contained in this brochure have been carefully edited at the time of publication. However, no responsibility for possible errors or omissions can be assumed. We reserve the right to change specifications and other information without notice. Duplication in whole or in part is prohibited.  
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# Nuraseal

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