

Our NSF Certified Compounds Offer You Some Clear Advantages...



...Including The Largest Selection.

Compounds Meeting International Certification

Potable water standards written by NSF International, WRAS, KTW and ACS are accepted criteria for toxicological review requirements regarding materials in contact with drinking water. Other accredited laboratories, such as Underwriters Laboratories, are also testing products using these standards and governments around the world are turning these standards into regulations requiring compliance.

At Minnesota Rubber and Plastics, we fully recognize the implications that these standards have on products like yours. That's why we've helped pioneer the research and development of compounds that comply with international material certifications and listing requirements. Product solutions that respond to both you and your customer's needs now and in the future.

Performance In Hot Water Applications

Material 559PE (ASTM D471)	Immersion Water / Hours @ 100°C / 212°F			
	7 Days	30 Days	90 Days	180 Days
Hardness, Points Change	+3	+2	+2	+3
Volume, Change %	+1.8	+2.6	+3.4	+4.0



Significant Time And Cost-Savings

Our ANSI/NSF Standard 61 certified compounds can help you cut through red tape and reduce certification time. By choosing a Minnesota Rubber and Plastics compound already certified by NSF International, WRAS, KTW or ACS for your assembly, all testing time and costs are minimized. And if our certified compounds are duplicated within a given assembly, further cost and time savings can be realized.

In addition, our ANSI/NSF Standard 61 certified compounds can save component part testing and registration costs. What's more, consumers can be assured that the components in their water system will not adversely affect their water quality.



All ANSI/NSF* Standard 61 Certified Compounds Are Not Created Equal

Our Certified
Compound 559PE
(70 Shore A)



- Volume Change +7%
- Hardness Change -7

Competitor's Certified
Compound
(70 Shore A)



- Volume Change +148%
- Hardness Change >-30

Continual Flow Chloramine Test Results: 30 Days

*ANSI/NSF American National Standards Institute



A Variety Of Certified Compounds



Minnesota Rubber and Plastics offers the most complete selection of ANSI/NSF Standard 61 certified compounds available today, with materials approved in 40 to 90 Shore A hardness, in 10-point increments. (See our technical bulletin.) Most of our compounds are certified for commercial hot water applications – the most stringent of listings – and can withstand prolonged exposure in cold, hot or boiling water.

Minnesota Rubber and Plastics has potable water listings to multiple standards, such as BS6920 of the Water Regulations Advisory Scheme (WRAS) in Great Britain, the Kautschuk Trink Wasser (KTW) in Germany and the (ACS) in France. We know that all markets are important and we continue to pursue agency certifications in other European and Asian countries. Several NBR compounds have also been certified which will further broaden our range of material offerings and options for you and your customers.

Thermoplastic elastomers (TPE's) are also an NSF certified option for designers in many applications and we can help you make the right choice in designing TPE parts into your systems. What's more, our materials are odor and taste free, they are approved for cold or hot beverages and are compatible with carbonated drinks.



Chlorine And Chloramine Resistance

Though others within our industry may confuse the issue, chlorine and chloramine are not synonymous. While chlorine performs as a disinfectant in a water supply, it can react with contaminants to form toxic disinfectant by-products (DBP's). Ammonia is often added to reduce those DBP's, and reacts with chlorine to form chloramine – a chemical relatively harmless to drink, yet destructive to most rubber compounds.



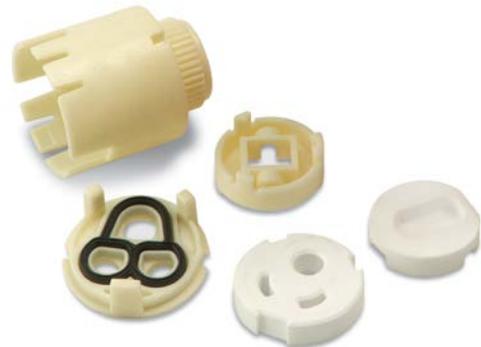
NSF Certification



Minnesota Rubber and Plastics has been a leader in the research and development of compounds that resist the eroding effects of chloramines and our EPDM and NBR compounds significantly outperform standard compounds in a chloramine environment.

In addition, our continuous flowing chloramine testing system duplicates the effects of chloramine exposure in field conditions and is superior to the more common static testing.

We continue to develop additional compounds such as our Ultra Chloramine Resistant® elastomers which provide unparalleled performance for the plumbing industry. These materials complement our existing ANSI/NSF Standard 61 material offerings.



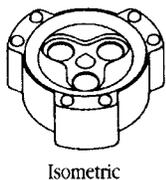
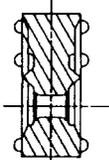
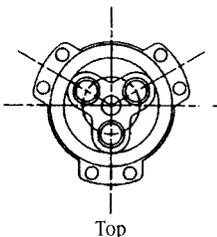


Flow Controllers For Water Conservation

Due to the frequently harsh operating environments for flow controllers, proper design and material selection are critical. Minnesota Rubber and Plastics offers a specially formulated EPDM series of water compatible compounds with production quality prototype parts available for your R&D tests.

As one of our custom molded capabilities we provide production quantities of flow controllers, including the frequently requested specification of 2.5 GPM.

And as an integral part of our service, our Product Design Group will help design and select the proper material for your flow controller application.



Providing The Compounds And Solutions

The need for chloramine resistant compounds has increased dramatically in recent years due to more municipalities chloraminating their water. Also, most governments have passed legislation or regulations requiring current or future compliance with ANSI/NSF standards.

For over 65 years, Minnesota Rubber and Plastics has provided close-tolerance, precision-molded elastomeric components for water related original equipment manufacturers (OEMs) worldwide. Our experience and new product formulations, including our extensive database of technical information, are assets we can put to work for you.

When you're looking for solutions to your water applications, look to Minnesota Rubber and Plastics, we're here to make your tough application a reality.

Proven In Water-Related Applications

- Irrigation Seals
- Pump Diaphragms, Seals, Valves and Assemblies
- Water Filter Seals
- Faucet, Shower and Cartridge Seals
- Ballcock Diaphragms and Seals
- Valve Seats and Diaphragms
- Pipe Coupling Seals
- Flow Controllers
- Check Valves
- Spray Formers



Minnesota Rubber and Plastics is a member of AWWA and WQA, organizations dedicated to ensuring the future of the world's water quality and supply.

Providing Results By Design

When it comes to manufacturing custom-molded rubber and plastic components and assemblies, Minnesota Rubber and Plastics offers you the kind of unique experience and expertise few in the industry can provide.

Experience And Expertise

With over 65 years of injection molding and manufacturing expertise we know how to design, engineer and produce components and assemblies, and we deliver on time and on budget. This is why manufacturers around the globe depend on Minnesota Rubber and Plastics.

Creative Solutions

Because of our unique ability to provide both rubber and plastic combination parts we can offer greater design, development and production efficiencies. This allows us to significantly reduce development time as we unify designs, with both engineering and manufacturing, to optimize the success of your program.

Resourceful Design From The Start

Our extensive experience with both rubber and plastics makes us an invaluable resource to designers who may be less familiar with the specific design parameters of components utilizing both materials.

As a result we know how to help maintain the integrity of your basic design concept while taking into consideration such practical factors as shrink distortion and parting lines. This knowledge helps avoid surprises when it comes time to actually manufacture, assemble and ultimately use the end product.

In-Depth Knowledge

We also know how to solve problems arising from the relationship between torque values and sealing contacts, to insure that the rubber and plastic materials complement each other's tolerance capabilities. In other words, the overall relationship between materials, parts and end-use performance need to be addressed. We understand that the materials used, and the way they are molded, can add considerably to the functionality of an assembly or component.

Services Designed To Help You

Minnesota Rubber and Plastics offers comprehensive design and manufacturing services that advance your programs:

- Preliminary engineering assistance with mechanical design review
- Materials engineering and specialty compounding
- Rapid mold design and development including complete prototyping services
- Injection, compression, transfer and LSR molding
- Metal-to-plastic conversions





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