



(SEN) Solid Elastomer Wheel
with pre-loaded sealed
precision ball bearings

SEN Solid Elastomer Wheels have super strength solid cast polyurethane elastomer one piece design with mechanically locked glass filled nylon bearing core, offers the best durability and performance of any elastomer type wheel on the market.

Features

- Precision and tapered bearings for towline use.
- 100% washable, steam cleanable, chemical resistant.
- Extreme impact strength, abrasion and compression resistance, will not flat spot when used within capacity rating.
- Meets FDA requirements.
- Offers a smooth ergonomic ride; easy start up.
- Bearing collar disperses heat away from elastomer wheel.
- **Color:** Gray with black core/bearing collar.
- **Hardness:** 68 Shore D (+/-5).
- **Temperature range:** - 50 to +180 ° F.

Options

- **Green or Yellow** Anti-static wheels, change SEN to SEN/AS/GR (Green) or SEN/AS/YE (Yellow).

Applications

- Food Processing
- Dairies
- Meat Processing
- Bakeries
- Fisheries
- Pharmaceutical

Wheel Dia. (inch)	Tread Width (inch)	Load Capacity (lbs)**	Hub Length (inch)	Bearing ID (inch)	Approx. Weight (lbs)	Part Number*
4	2	1500	2-3/16	1/2	3	SEN042008
5	2	1800	2-3/16	1/2	4	SEN052008
6	2	2100	2-3/16	1/2	5	SEN062008
8	2	2600	2-3/16	1/2	6	SEN082012
8	3	3000	3-1/4	3/4	7	SEN083008
10	3	3200	3-1/4	3/4	8	SEN103012

*P = PRECISION BALL BEARINGS WITH END CAPS
(AVAILABLE WITH STAINLESS STEEL PRECISION BEARINGS AND STAINLESS STEEL END CAPS)

** = MANUAL LOAD RATINGS

SOLID ELASTOMER CHEMICAL RESISTANCE GUIDE

This table lists a broad range of fluids and chemicals which are considered compatible with SEN/SS wheels. Ratings are at 72° F unless specified otherwise. Concentrations of aqueous solutions are saturated, except where noted. Note especially that this data is based on laboratory tests and may vary in practice. Field testing is recommended to confirm these recommendations. Only those chemicals that have little or no effect on the SEN wheel are listed here. Other fluids may have a very minor or major effect. For information on the compatibility of other fluids, contact Acorn™ engineering.

Acetic acid, 20%

Acetic acid, 30%

Acetic acid, glacial

Acetylene

Ammonium chloride solutions

Ammonium sulfate solutions

Amyl acetate

ASTM oil 1 (300°F)

ASTM oil 3 (300°F)

ASTM reference fuel A (158°F)

ASTM reference fuel B (158°F)

ASTM reference fuel C (158°F)

Beer

Borax solutions

Boric acid solutions

Butane

FREON-11

FREON-12

FREON-113

FREON-113 (130°F)

FREON-114

Gasoline

Glue

Glycerin

N-Hexane

Hydrogen

Hydrogen sulfide

Iso-Octane

Calcium chloride solutions

Calcium hypochlorite, 5%

Carbon dioxide

Carbon monoxide

Citric acid solutions

Copper chloride solutions

Copper sulfate solutions

Cyclohexane

Dibutyl phthalate

Diethyl sebacate

Diethyl phthalate

Ethyl alcohol

Ethylene glycol

Ethylene oxide

Isopropyl alcohol

JP-4 (100°F)

Lubricating oils

Mercury

Methyl alcohol

Methyl ethyl ketone

Mineral oil

Naphtha

Oleic acid

Palmitic acid

Potassium hydroxide, dil. solutions

Pydraul 312C

SAE #10 oil

Sea water

Silicone grease

SKYDROL 500

Soap solutions

Sodium chloride solutions

Sodium hydroxide, 20%

Sodium hypochlorite, 5%

Sulfuric acid, up to 5%

Tannic acid, 10%

Trisodium phosphate solutions

Water (158°F)

Xylene

Zinc chloride solutions

PLASTICS

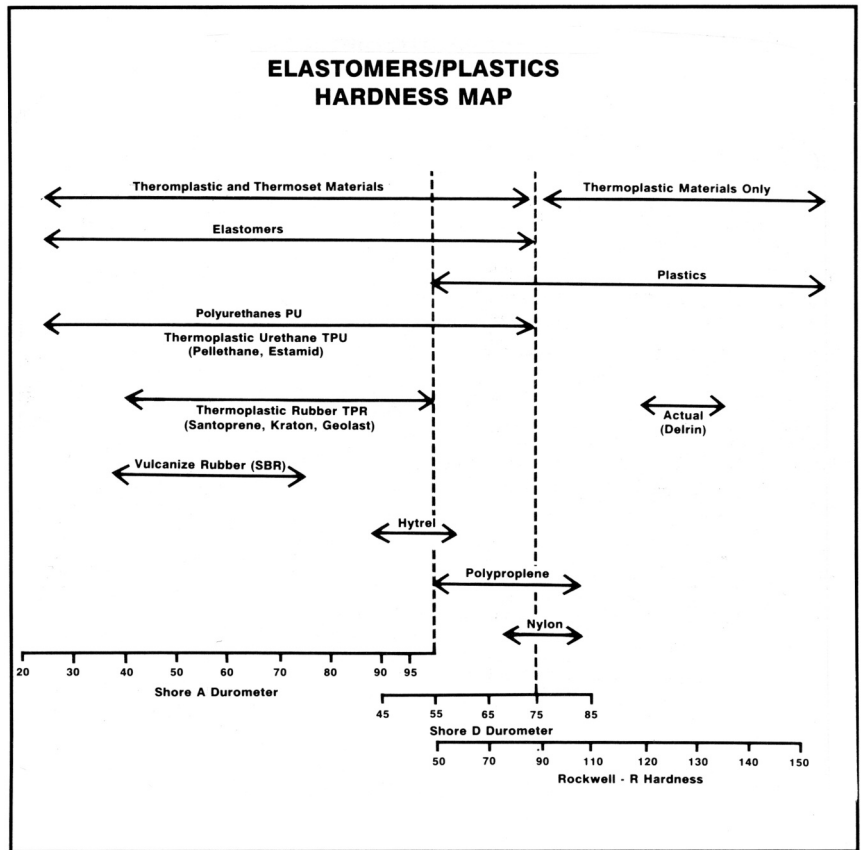
The world of elastomers and plastics has become a very interesting topic with new terms appearing every day. The information in this article is intended to assist in the development of a common language and understanding associated with this topic. Although this information is elementary, we believe you will find it to be useful. In addition, this material will serve as the beginning of a series of articles in this topic area.

In order to build a foundation, we will cover some important terms. **Elastomers** are highly stretchable materials, like rubber. **Plastics**, on the other hand, tend to be more rigid in construction. There is an overlap area related to the hardness characteristic of these materials. The accompanying chart displays the hardness ranges of these general categories, some more specific categories and some brand names encountered from time to time. The hardness overlap area between elastomers and plastics is in the 55 to 75 Shore D durometer range.

Thermoplastic materials tend to be composed of one element. These materials can be heated and reshaped a number of times.

Thermoset materials, on the other hand, usually involve a combination of components. When these components are mixed, heat is usually generated by the chemical reaction. After the combined materials are shaped, they cannot be reshaped.

Urethanes are elastomers which are available in both thermoset and thermoplastic materials. The term TPU refers to a thermoplastic urethane. There are many brand names in the urethane family, e.g. pellethane, estamid, etc. The term PU refers to a thermosetting polyurethane.



Vulcanized rubber is a thermosetting material as well as a SBR (styrenebutadiene rubber). TPR is a thermoplastic material involving many brand names, e.g. Santoprene, Kraton, Geolast, etc.

Hytrel is a thermoplastic material which, like urethane, is an elastomer. Hytrel is at the harder end of the range of hardness available with elastomers. **Polypropylene** is a thermoplastic material which possesses characteristics of both elastomers and plastics. **Nylon** is a thermoplastic material which has primarily the properties of plastics.

The accompanying chart should help you keep the hardness properties of these materials in focus.

EXTREME SOLID ELASTOMER - EX/SE

Capacity Up to 1000 lbs.



Features

Heavy duty version of XI wheel.

- **Hardness:** 75 Shore D.
- **Wheel Face:** Moderate crown.
- **Finish:** XI Green.
- **Temperature Range:** up to +200°F.
- **For customization & special application options, please consult Acorn™.**

Dia. (inch)	Width (inch)	Cap. (lbs)	Hub Length (inch)	Bore (inch)	Bearing ID (inch)	Wt. (lbs)	Part Number*
4	2	1000	2-3/16	1-3/16	3/4	1-1/2	EX/SE00042012
5	2	1000	2-3/16	1-3/16	3/4	1-1/2	EX/SE00052012
6	2	1000	2-3/16	1-3/16	3/4	1-3/4	EX/SE00062012
8	2	1000	2-3/16	1-3/16	3/4	4	EX/SE00082012

*Available with Stainless Steel Bearings (29SS).

*00 = Bore size only with no Bearing; P = Precision Ball Bearing; R = Roller Bearing

Designed specifically for high capacity manual applications involving chemicals, solvents or water. X-tremely low rolling resistance provides the ergonomic qualities you demand. One-piece construction affords freedom from tread separation with an exceptionally long life. Non-marking, floor protective tread.

EXTREME PLUS SOLID ELASTOMER - XP

Capacity Up to 2800 lbs.



Features

- **Hardness:** 60 Shore D.
- Premier Solid Poly Wheel.
- Excellent for towing applications.
- **Wheel Face:** Moderate crown.
- **Finish:** XP Gray.
- **Temperature Range:** up to +250°F.
- **For customization & special application options, please consult Acorn™.**

Dia. (inch)	Width (inch)	Capacity (lbs)	Hub Length (inch)	Bore (inch)	Bearing ID (inch)	Part Number*
4	2	1400	2-7/16	1-9/16	1/2	XP0422808
5	2	1200	2-7/16	1-9/16	1/2	XP0522808
6	2	1400	2-7/16	1-9/16	1/2	XP0622808
6	3	1700	3-1/2	2-7/16	3/4	XP0652812
8	2	1200	2-7/16	1-9/16	1/2	XP0822808
8	3	2000	3-1/2	2-7/16	3/4	XP0852812
10	3	2500	3-1/2	2-7/16	3/4	XP1052812
12	3	2800	3-1/2	2-7/16	3/4	XP1252812

*Available with Stainless Steel Bearings (29SS).

*00 = Bore size only with no Bearing; P = Precision Ball Bearing; R = Roller Bearing