



EXTRUDED SEALS • CLEAN GRIP • AUTOMOTIVE HOSE





# CLEAN SEAL®, INC.



# About Clean Seal, Inc.

Closed cell rubber extrusions are shaped to fit a wide variety of applications sealing in or sealing out unwanted elements.

Clean Seal, Inc. has provided the original equipment manufacturer and fabricator with these high quality seals and gaskets since 1978.

Our seals are compounded, mixed and tested using the most advanced equipment and technologies available in the polymer industry.

Clean Seal has been certified to ISO Standards since 2002. The International Organization for Standardization (ISO) is a worldwide federation of national standards bodies that publishes international standards across various fields. The certification process establishes, documents, and maintains a system for ensuring the output quality of the process. An independent certifying body performs annual audits to verify that the company is meeting all of the requirements of the standard. The procedure is difficult to pass, but it shows customers that Clean Seal has taken the steps necessary to ensure their products and services are the very highest of quality.

Secondary Operations to speed installation include:

- Cutting to Length
- Notching
- Hole Punching
- Splicing/Bonding
- Adhesive Lamination
- Vulcanizing

# Serving Our Customers for over 45 Years...

# History

Founded by Juanita Moore in 1978. Clean Seal, Inc. envisioned a product that would replace the sticky butyl material that was being used for window and door seals. This butyl material would ooze out of the application, collecting dirt and grime, and leave dark streaks down the sides of these beautiful units our customers were building. Clean Seal's extruded rubber products remained intact, clean, and ensured a consistent seal in these applications, whereas the name "Clean Seal" was born.

# Keys to our Success

### Complete Satisfaction and Trust

We treat our customers with the utmost respect and care, ensuring we provide them the right product and the right fit. Our continuous focus on providing the highest of quality products assures our customers they can always rely on us.

### Large Inventory of Stock Items On Hand

With millions of feet in our inventory, many of our stock items can be on their way to you within 24 hours.

### Customer Service

Our customer service department will help you with prices on standard line stock items, sample requests, availability of product and give you suggestions on product to order for your specific requirements.

Our quoting department can quote on custom products.

### Quality Assurance

Uniform materials and design are critical to any manufacturing process. Strict adherence to Quality Assurance procedures assures that you receive product that will maintain specific tolerances to meet your requirements.

### Knowledgeable Sales Staff

Our national sales personnel and in-house staff have many years of experience and can suggest the most effective material and profile shape for your application.

We'll work with your engineers and purchasing staff to select the best product for your use and environment, or help in the design to meet your specific needs.

### Capability/Capacity

We have the ability and space to accommodate the largest manufacturing companies, as well as the local family shops, without compromising the quality and personal service Clean Seal is known for providing.

### Central Location

We're located just 1.5 hours from Chicago, 3.5 hours from Detroit and 2.5 hours from Indianapolis. Our international customers find they can easily reach our plant with the convenient location near the South Bend airport.



# CLEAN SEAL, INC.



### Diversity of Knowledge

Since 1978, we have provided superior service in such diverse industries as recreational vehicles, transportation, marine, agriculture and mining. The vast knowledge of a variety of industries and the materials that will best work for the specific application is Clean Seal's strong suit. Because the nation-wide sales force works with a wide variety of manufacturers, their shared experinces can help solve problems in an innovative and timely manner.

### **Innovators**

Clean Seal has long been the innovator, the problem solver and the originator of new products. Original Equipment
Manufacturers (O.E.M.'s) look to Clean Seal to solve their sealing problems. When a large recreational vehicle manufacturer of motorhomes and travel trailers was experiencing leakage problems with their slide-out rooms, they came to Clean Seal for a solution. Clean Seal, with the help of an engineering consulting firm, designed a series of extruded gaskets that eliminated the problem. Now these slide-out gaskets are the most copied extruded profiles in the industry.

### Additional Product Lines

Clean Seal strives to keep up to date with our customers' needs. In order to do that, it is important for us to offer a diverse product line. Clean Grip is an excellent extension of our extruded seals. This line comes in a variety of shapes and sizes in conjunction with a clip-on channel for easy installation (pgs. 16-19).

In 2003, we unveiled our Automotive Hose line and positioned ourselves as an industy leader in fuel hose solutions (pgs. 20-24).

Our Clean Trim line offers an assortment of vehicle and equipment body trim moldings that can be used in virtually any application (pg. 25).

PLEASE NOTE: The information contained in this catalog is based on data believed to be accurate at the time of printing. Due to the constant effort to update product, specifications are subject to change without notice and without incurring obligation. Because we cannot anticipate or control the different conditions which this information and our products may be used, we do not guarantee the applicability of this information or the suitability of our products in any given situation. Users of our product should make their own tests to determine the suitability of each product for their particular purposes. Due to the ever-changing cost of raw materials used to manufacture our parts, Clean Seal, Inc. reserves the right to revise a quoted price at any time. All prices are in U.S. Dollars. All product sales are governed by Clean Seal, Inc.'s General Terms and Conditions of Sale. No other terms and conditions shall exist or supersede Clean Seal, Inc.'s terms and conditions.









2588 / 2589		
Α	В	
.400	.340	
.480	.425	
	Α	

### SEALS & GASKETS

Clean Seal extrusions meet original equipment manufacturer and fabricator specifications for a multitude of seal and gasket applications. In-service applications are evaluated to determine the best and most cost-effective polymer for your requirements.

### RUBBER EXTRUSIONS

Our products are available in standard and custom profiles. EPDM, Neoprene, Nitrile and Silicone compounds are available. (Note Key indicating the make-up of stock profiles.)

These extrusions are available in continuous lengths and intricate profile shapes but can also be cut to length to meet your specifications.

### **DUROMETERS**

The majority of our stock rubber extrusions are closed cell sponge materials (medium density) while a selected few are dense (ranging from 40-90 durometer, Shore A).

### **ADHESIVES**

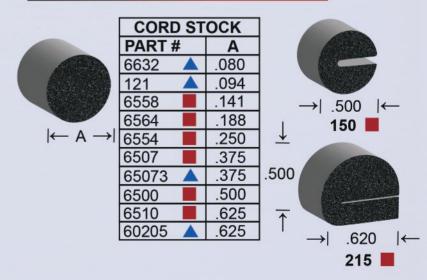
Clean Seal utilizes the best Pressure Sensitive Adhesives and is able to apply these, with our specialized equipment, to the majority of the extruded profiles we offer. Whether your application requires a temporary or permanent bond, our staff can help in selecting the proper adhesives for your needs.

### SECONDARY PROCESSES

In addition to laminating extruded profiles with adhesive, Clean Seal offers other Value-Added processes to ease your seal installation. These processes include, cutting to specific lengths and/or splicing options to fit your application requirements perfectly.

### Cord Stock

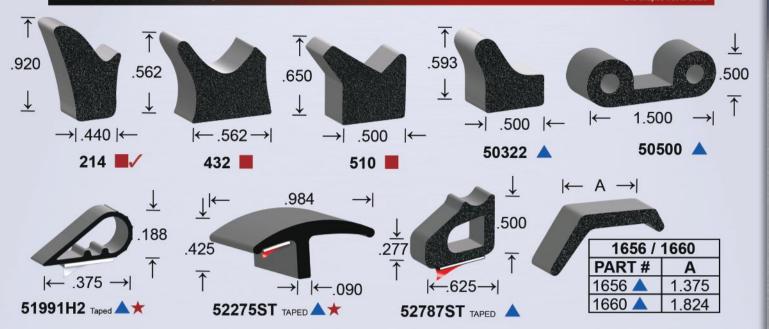
Die shapes not to scale



DIE IDENTIFICATION KEY: A EPDM Neoprene\* \* Dense Non Stock Item

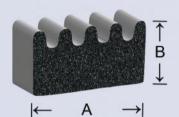
### Miscellaneous Sections

Die shapes not to scale

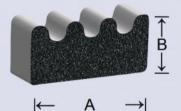


# "Ribbed" Sections

Die shapes not to scale



RIBBED STOCK (5)				
PART#	A	В		
2897	.500	.312		
5984	.563	.315		
1083	.625	.312		
103	.625	.375		
2613W 🔺	.625	.375		



RIBBED STOC	K (4)	)		
PART #	Α	В		
1076H3 TAPED	.334	.137		
1152W	.375	.133		
1152B		.133		
113	.375	.188		-
		Dut		12 mali S
00			Ö	

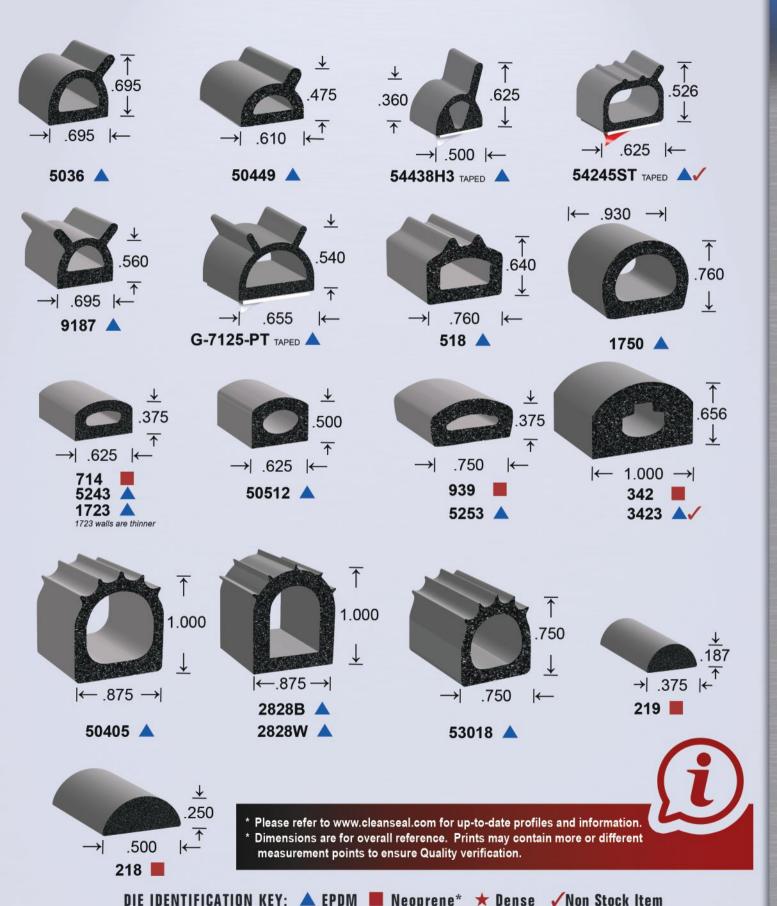


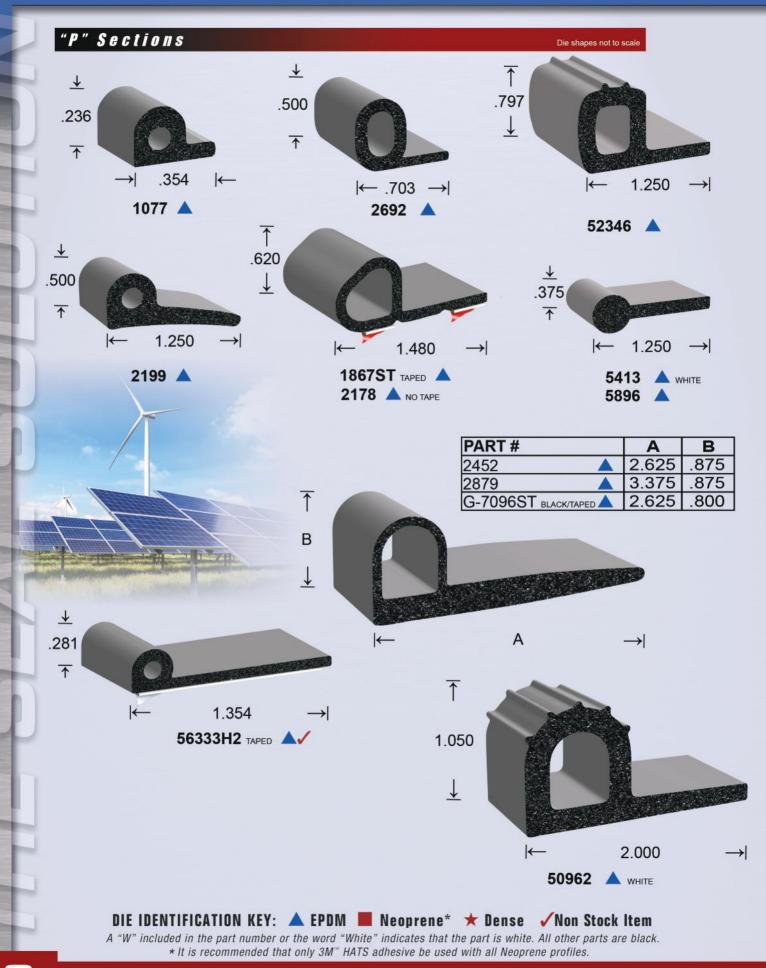
DIE IDENTIFICATION KEY: A EPDM Neoprene\* \* Dense Non Stock Item







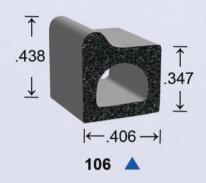


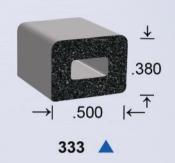


## Rectangles and Squares

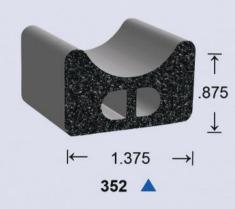
Die shapes not to scale

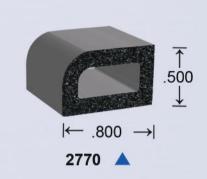






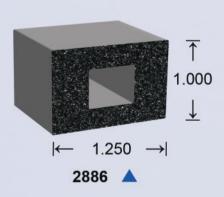






We Use ...

Automotive Sealing Tapes





DIE IDENTIFICATION KEY: 🔺 EPDM 📕 Neoprene\* 🛨 Dense 🗸 Non Stock Item

# Coves / Wipers / "L" Sections

Die shapes not to scale



WIPERS			
PART#		Α	В
2385	<b>A</b> *	1.875	.125
2731	*	3.000	.125
ZCS-5.00	<b>A</b> *	5.000	.125



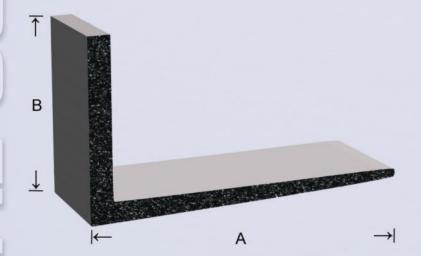
<del> </del>	A		$\rightarrow$
	COV	'ES	
PART #		Α	В
1974 мнг		1.980	1.300



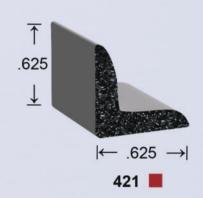
	.250
3.950	.200
3.950	.200
4.500	.125
	3.950



G-7139 🔺	6.000	.100
----------	-------	------



"L" SECTIONS		
PART#	Α	В
2730 ★	2.000	1.125
G-7095 A*	3.000	1.125







Please refer to www.cleanseal.com for up-to-date profiles and information.

DIE IDENTIFICATION KEY: A EPDM Neoprene\* \* Dense Non Stock Item





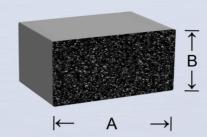


<sup>\*</sup> Dimensions are for overall reference. Prints may contain more or different measurement points to ensure Quality verification.

### Bar Stock

Die shapes not to scale

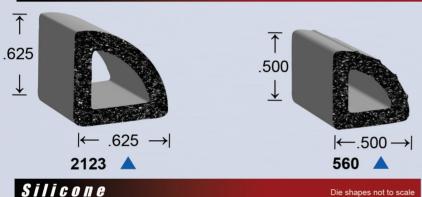
BAR STOCK			
PART#	Α	В	
4506	.750	.250	
4508	.500	.250	
4516	.750	.187	
4517	.625	.625	
4531	1.000	.250	
4534	.500	.187	
4537	1.250	.250	

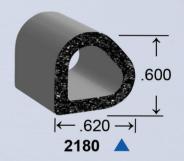


BAR STOCK		
PART #	Α	В
4712 🔺	1.250	.625
4804 🔺	1.250	.187
4876 🔺	.500	.375
4879 🔺	.500	.250
4968 🔺	.750	.500
4969 🔺	.750	.187
4970 🔺	.750	.375
4971 🔺	1.000	.250
4972 🔺	.500	.187
4973 🔺	1.000	.500
4974 🔺	.750	.250
45082▲✓	.500	.250

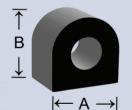
### "Triangle"Sections

Die shapes not to scale

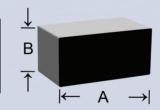




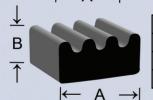
Because of its reliability of performance under a wide range of difficult service conditions, engineers often choose silicone. Silicone becomes more cost-effective when the costs of fabrication, maintenance, and installation are considered. Silicone is available in a variety of standard dies and may be offered in additional configurations according to your requirements.



"D" SECTION (with hole)		
PART #	A	В
8490	.313	.188
8543	.500	.500



RECTANGLES			
PART# A B			
8556	.500	.250	
8598	.500	.125	



RIBBED SECTIONS							
PART#	Α	В					
8489	.375	.188					
8544	.625	.312					



TEARDROP							
PART #	A	В					
8325T TAPED	.500	.250					



CORDS						
PART#	Α					
8531	.375					
8536	.250					
8539	.188					

DIE IDENTIFICATION KEY: 🛕 EPDM 📕 Neoprene\* ★ Dense 🗸 Non Stock Item







# **MATERIAL SELECTION**

When selecting the best elastomer for an application it is critical to consider the physical, mechanical, and chemical resistance properties required for the seal. This will help ensure the material sustains its physical properties through temperature, environmental factors, and time.

EPDM (Ethylene-Propylene-Diene-Monomer) is found in a wide range of applications and is excellent for outdoor use. It is well known for its excellent ozone, weathering, and aging resistance. It has excellent water and steam resistance, maintains its flexibility at low temperatures, features excellent resistance to alkalis, acids, and oxygenated solvents, and is very color stable. However, it is not recommended for resistance to oil, gasoline, and hydrocarbon solvents.

Neoprene (Polychloroprene) is generally considered an excellent all-purpose elastomer with a solid balance of properties and few limitations. It has moderate resistance to oils and gasoline. It features good flame resistance, weathers well, and has very good resistance to abrasion, flex cracking, alkalis, and acids. However, neoprene provides poor resistance to aromatic and oxygenated solvents. It also has limited flexibility at low temperatures.

Nitrile (Acrylonitrile-Butadiene) has very good oil, gasoline, and abrasion resistance. With increased nitrile content of a compound, higher resistance to alkalis and acids can be achieved. Nitrile must be specifically

compounded for resistance to ozone, sunlight, and natural aging. It has poor resistance to oxygenated solvents. Although Nitrile is superior in oil and solvent resistance, it is not recommended for applications where it is exposed to severe weathering.

Silicone (Polysiloxane) features excellent resistance to ozone, sunlight, and oxidation, and is very color stable. It maintains excellent flexibility at low temperatures, has outstanding resistance to high heat, low compression set, and is a very good electrical insulator. However, it is not recommended for applications that require abrasion, tear, and cut growth resistance, or high tensile strength. It is also not recommended for resistance to oils, gasoline, solvents, alkalis, and acids.

### Basic General Material Properties

Material	Ozone	UV	Weather	Abrasion/Tear Resistance	Oil/Gasoline Resistance	Temps (°F)
EPDM	E	E	E	G - E	Р	-20 to 300
Neoprene	G	VG	G	G-E	F-G	-10 to 225
Nitrile	Р	P-F	F - G	G-E	VG	-30 to 275
Silicone	E	Е	Е	P-F	P - F	-65 to 400
Kev: E=Excelle	ent: VG=Verv	Good: G=Goo	od: F=Fair: P=	Poor		

The information presented is intentionally general in nature. Each material can be compounded to raise and/or lower ratings to acceptable levels however, limitations remain within each material type. The best course is to seek a balance of desired properties for an application.



# **ADHESIVES**

Clean Seal offers a variety of adhesives that we can apply to the seal with our specialized lamination equipment, which makes your job of attaching the seal to your application quick and hassle-free.

It is critical to communicate all conditions that apply to your specific needs. Heat, moisture, type of surface, painted or unpainted, weather exposure, and other factors will all play a role in how a specific adhesive will perform. Clean Seal will work with your staff to provide the proper adhesive for your application.



**H2 – Acrylic Adhesive:** A high tack double coated film adhesive that bonds well to a variety of substrates, including painted or fiberglass surfaces, as well as LSE (low surface energy) substrates. It is primarily used in static applications or as a temporary hold before mechanically fastening.

**H3 – Rubber-based Adhesive:** An extremely aggressive double coated film adhesive that adheres well to a broad spectrum of surfaces, including aluminum, bare metals, and stainless steel. It is primarily used in static applications or as a temporary hold before mechanically fastening.

A – Silicone/Acrylic: A high adhesion double coated film adhesive that can be laminated to sponge silicone profiles. The consumer side provides a high adhesion acrylic that bonds to a wide variety of materials. This adhesive is recommended for use in static or temporary hold applications.

ST – 3M™ Sealing Tape: An extremely aggressive, very high strength acrylic foam adhesive that bonds with superior holding power to most surfaces, including automotive paints and metals. It offers the most versatile and robust method for applying seals and is designed to be used in dynamic sealing applications. (The HATS variation is laminated to Neoprene seal profiles). Clean Seal uses high tech heat-laminating equipment to thermally bond the ST and HATS adhesives to the extruded seal. This thermal lamination process ensures a strong, reliable, inseparable bond of the adhesive to the seal profile.

### Basic Adhesive Reference

Adhesive	Bond Build	UV Resistance	Solvent Resistance	Service Temps (°F)					
H2 - Acrylic	48 to 72 hrs.	Е	E	-30 to 250					
H3 - Rubber-based	High Initial	Р	Р	0 to 120					
A - Silicone/Acrylic	48 to 72 hrs.	Е	G	-40 to 250					
ST - 3M™ Sealing Tape	Very High Initial Full at 72 hrs.	Е	Е	-40 to 194					
	D								

Key: E=Excellent; G=Good; P=Poor;

To achieve maximum adhesion, a few simple guidelines should be followed.

- Surface Preparation: Bonding surface must be clean, dry, and free from contaminants such as dirt, oils, grease, plasticizers, mold releases. Isopropyl alcohol can be used to remove most surface contaminants.
- Applying Seal with Adhesive: Peel release liner one to two feet at a time and place seal/adhesive firmly and uniformly on substrate of application.
- Apply Pressure: A weighted roller is suggested to apply the proper pressure needed to achieve full wet-out
  of the adhesive.
- Storage: Adhesives should always be stored and applied in dry, dust-free environments at room temperature.

# SPLICING AND DIE CUTTING

### Secondary Manufacturing Procedures

Save your company valuable time and money, Clean Seal, Inc. offers several options with our secondary operations to assist you in your manufacturing process with parts tailored to your exact requirements.

### **CUT TO SPECIFIC LENGTHS**

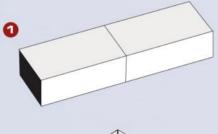
Need the extruded rubber gasket cut to a specific length? No need to hand measure each piece, Clean Seal has the equipment to do this much more efficiently. We can provide you with "ready to use" components, cut specifically for your application.

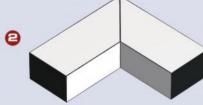
### **DRILLING & NOTCHING**

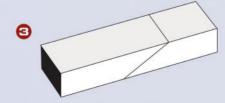
Some applications may require a seal with vent holes spaced accordingly to release air or relief notches to facilitate a corner. This takes time and effort during seal installation. Clean Seal can make these relief points to your specifications, saving your company both time and money.

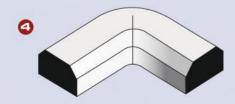
### DIE CUTTING

Rubber sheets can be die cut to produce a large number of the same custom gasket shape that is needed in your application. Clean Seal can provide die cut gaskets in various shapes and sizes, while holding tight dimensional tolerances.









### SPLICING

When an application requires the use of an endless seal, Clean Seal is able to cut and splice most rubber profiles to the multi-sided frame or o-ring dimensions you require. This process provides you with a "ready to use" gasket and hassle-free installation.

### Types of Splices

- 1 Butt Splice used generally for fabricating O-rings or in applications with radius corners, where there is limited or no strain on the splice.
- Corner Splice used to form frame gaskets of multiple sides and specific configurations.
- Bevel Splice used as an alternative to the butt splice if more cross-sectional surface bonding area is desired.
- Ontched Splice used as an alternative to the corner splice to achieve a smooth rounded corner. One butt splice in the unit is necessary to complete a frame using this type.

### **COLD GLUE SPLICING**

This is the process of bonding two ends of a rubber extrusion together using a quick setting liquid adhesive. This method is the most common, cost effective solution of creating a splice with exceptional strength at the seam.

### HOT SPLICING/VULCANIZING

This process employs the use of a compound to chemically bond two ends of rubber extrusion together. The compound is cured, or vulcanized, to create the splice and forms a more flexible seam. This process takes more time than traditional cold splicing due to the cure process. Set-up costs may be incurred due to splice molds available for specific profiles.



# FIND YOUR MEASUREMENT

# Millimeter/Decimal/Fraction Conversion Chart

Milli- meter	Decimal	Fraction (inches)	Milli- meter	Decimal	Fraction (inches)	Milli- meter	Decimal	Fraction (inches)	Milli- meter	Decimal	Fraction (inches)	Milli- meter	Decimal	Fraction (inches)
0.1 0.2 0.3 0.397 0.4	.0039 .0079 .0118 .0156 .0157	1/64	5.159 5.2 5.3 5.4 5.5	.2031 .2047 .2087 .2126 .2165	13/64	10.2 10.3 10.319 10.4 10.5	.4016 .4055 .4063 .4094 .4134	13/32	15.3 15.4 15.478 15.5 15.6	.6024 .6063 .6094 .6102 .6142	39/64	20.3 20.4 20.5 20.6 20.638	.7992 .8031 .8071 .8110 .8125	13/16
0.5 0.6 0.7 0.794 0.8	.0197 .0236 .0276 .0313 .0315	1/32	5.556 5.6 5.7 5.8 5.9	.2188 .2205 .2244 .2283 .2323	7/32	10.6 10.7 10.716 10.8 10.9	.4173 .4213 .4219 .4252 .4291	27/64	15.7 15.8 15.875 15.9 16.0	.6181 .6220 .6250 .6260 .6299	5/8	20.7 20.8 20.9 21.0 21.034	.8150 .8189 .8228 .8268 .8281	53/64
0.9 1.0 1.1 1.191 1.2	.0354 .0394 .0433 .0469 .0472	3/64	5.953 6.0 6.1 6.2 6.3	.2344 .2362 .2402 .2441 .2480	15/64	11.0 11.1 11.113 11.2 11.3	.4331 .4370 .4375 .4409 .4449	7/16	16.1 16.2 16.272 16.3 16.4	.6339 .6378 .6406 .6417 .6457	41/64	21.1 21.2 21.3 21.4 21.431	.8307 .8346 .8386 .8425 .8438	27/32
1.3 1.4 1.5 1.588 1.6	.0512 .0551 .0591 .0625 .0630	1/16	6.350 6.4 6.5 6.6 6.7	.2500 .2520 .2559 .2598 .2638	1/4	11.4 11.5 11.509 11.6 11.7	.4488 .4528 .4531 .4567 .4606	29/64	16.5 16.6 16.669 16.7 16.8	.6496 .6535 .6563 .6575 .6614	21/32	21.5 21.6 21.7 21.8 21.828	.8465 .8504 .8543 .8583 .8594	55/64
1.7 1.8 1.9 1.984 2.0	.0669 .0709 .0748 .0781 .0787	5/64	6.747 6.8 6.9 7.0 7.1	.2656 .2677 .2717 .2756 .2795	17/64	11.8 11.9 11.906 12.0 12.1	.4646 .4685 .4688 .4724 .4764	15/32	16.9 17.0 17.066 17.1 17.2	.6654 .6693 .6719 .6732 .6772	43/64	21.9 22.0 22.1 22.2 22.225	.8622 .8661 .8701 .8740 .8750	7/8
2.1 2.2 2.3 2.381 2.4	.0827 .0866 .0906 .0938 .0945	3/32	7.144 7.2 7.3 7.4 7.5	.2813 .2835 .2874 .2913 .2953	9/32	12.2 12.3 12.303 12.4 12.5	.4803 .4843 .4844 .4882 .4921	31/64	17.3 17.4 17.463 17.5 17.6	.6811 .6850 .6875 .6890 .6929	11/16	22.3 22.4 22.5 22.6 22.622	.8780 .8819 .8858 .8898 .8906	57/64
2.5 2.6 2.7 2.778 2.8	.0984 .1024 .1063 .1094 .1102	7/64	7.541 7.6 7.7 7.8 7.9	.2969 .2992 .3031 .3071 .3110	19/64	12.6 12.7 12.8 12.9 13.0	.4961 .5000 .5039 .5079 .5118	1/2	17.7 17.8 17.859 17.9 18.0	.6968 .7008 .7031 .7047 .7087	45/64	22.7 22.8 22.9 23.0 23.019	.8937 .8976 .9016 .9055 .9063	29/32
2.9 3.0 3.1 3.175 3.2	.1142 .1181 .1220 .1250 .1260	1/8	7.938 8.0 8.1 8.2 8.3	.3125 .3150 .3189 .3228 .3268	5/16	13.097 13.1 13.2 13.3 13.4	.5156 .5157 .5197 .5236 .5276	33/64	18.1 18.2 18.256 18.3 18.4	.7126 .7165 .7188 .7205 .7244	23/32	23.1 23.2 23.3 23.4 23.416	.9094 .9134 .9173 .9213 .9219	59/64
3.3 3.4 3.5 3.572 3.6	.1299 .1339 .1378 .1406 .1417	9/64	8.334 8.4 8.5 8.6 8.7	.3281 .3307 .3346 .3386 .3425	21/64	13.494 13.5 13.6 13.7 13.8	.5313 .5315 .5354 .5394 .5433	17/32	18.5 18.6 18.653 18.7 18.8	.7283 .7323 .7344 .7362 .7402	47/64	23.5 23.6 23.7 23.8 23.813	.9252 .9291 .9331 .9370 .9375	15/16
3.7 3.8 3.9 3.969 4.0	.1457 .1496 .1535 .1563 .1575	5/32	8.731 8.8 8.9 9.0 9.1	.3438 .3465 .3504 .3543 .3583	11/32	13.891 13.9 14.0 14.1 14.2	.5469 .5472 .5512 .5551 .5591	35/64	18.9 19.0 19.050 19.1 19.2	.7441 .7480 .7500 .7520 .7559	3/4	23.9 24.0 24.1 24.2 24.209	.9409 .9449 .9488 .9528 .9531	61/64
4.1 4.2 4.3 4.366 4.4	.1614 .1654 .1693 .1719 .1732	11/64	9.128 9.2 9.3 9.4 9.5	.3594 .3622 .3661 .3701 .3740	23/64	14.288 14.3 14.4 14.5 14.6	.5625 .5630 .5669 .5709 .5748	9/16	19.3 19.4 19.447 19.5 19.6	.7598 .7638 .7656 .7677 .7717	49/64	24.3 24.4 24.5 24.6 24.606	.9567 .9606 .9646 .9685 .9688	31/32
4.5 4.6 4.7 4.763 4.8	.1772 .1811 .1850 .1875 .1890	3/16	9.525 9.6 9.7 9.8 9.9	.3750 .3780 .3819 .3858 .3898	3/8	14.684 14.7 14.8 14.9 15.0	.5781 .5787 .5827 .5866 .5906	37/64	19.7 19.8 19.844 19.9 20.0	.7756 .7795 .7813 .7835 .7874	25/32	24.7 24.8 24.9 25.0 25.003	.9724 .9764 .9803 .9843 .9844	63/64
4.9 5.0 5.1	.1929 .1969 .2008		9.922 10.0 10.1	.3906 .3937 .3976	25/64	15.081 15.1 15.2	.5938 .5945 .5984	19/32	20.1 20.2 20.241	.7913 .7953 .7969	51/64	25.1 25.2 25.3 25.400	.9882 .9921 .9961 1.0000	1

CLEAN GRIP is an economical way to secure decorative trims and/or functional seals and gaskets. There is no need for rivet holes to be drilled, no screws are required. CLEAN GRIP simply clamps on.

It takes less time and provides a professional look in many applications. CLEAN GRIP is available in a variety of types and designs to fit every need.

Call today and let us help you find the right design and fit for your application.

### Edge Trim

Die shapes not to scale

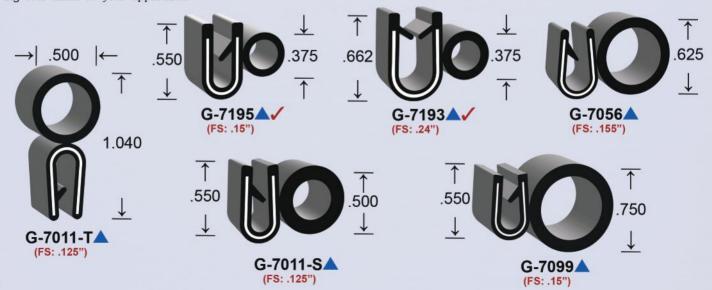
Edge Trims are extruded PVC clip-ons that contain a metal core for added gripping strength. These profiles are used to protect exposed edges and/or provide a finished look to your application.



### Trim Seal

Die shapes not to scale

Trim Seals are a combination of PVC edge trims with an EPDM bulb attached. This creates a functional, yet aesthetically appealing seal finish to your application.



\*FS: INDICATES SUGGESTED FLANGE SIZE

DIE IDENTIFICATION KEY: ▲ EPDM ■ Neoprene\* ★ Dense ✓ Non Stock Item

A "W" included in the part number or the word "White" indicates that the part is white. All other parts are black.

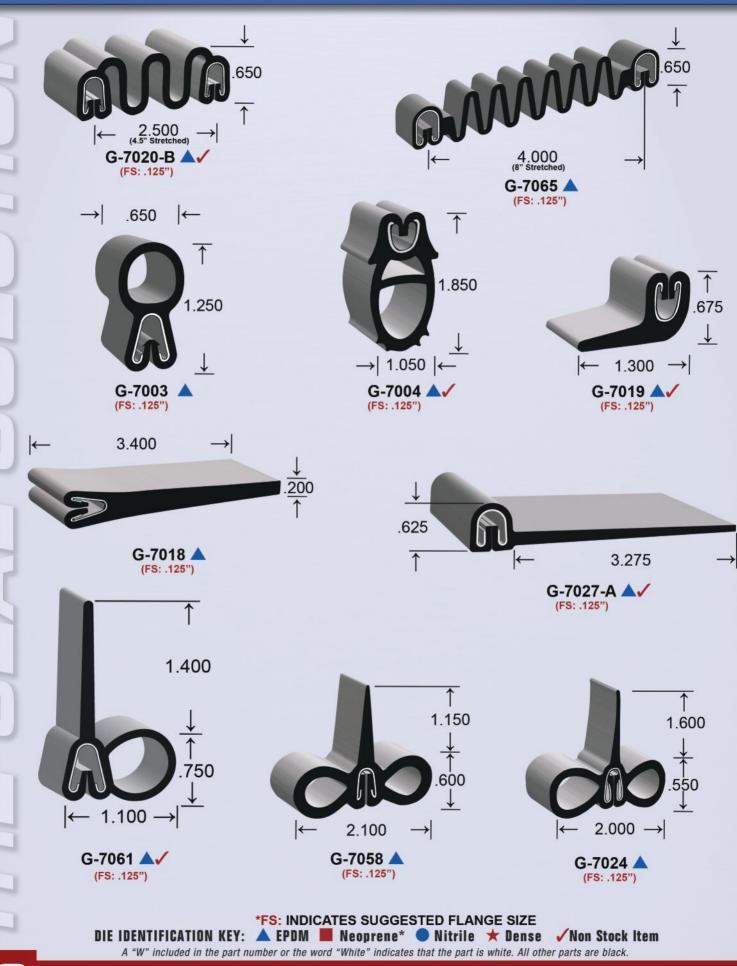
### Spring Grip Seals .850 Die shapes not to scale The heart of Spring Grip is the continuous flexible coated steel core. The core grips the flange tightly, 625 1.200 providing a simple and low-cost assembly method to attach seals and gaskets. .650 ← 1.275 -G-7002 G-7010 A (FS: .125") (FS: .125") $\uparrow$ .800 → .625 .625 .637 |←.650→| |**←** 1.000 **→**| G-7012 A G-7013 A G-7146 (FS: .125") (FS: .125") (FS: .125") -.700 → .648 625 650 **|**←.700 → 1.200 G-7009 A G-7006 G-7046 (FS: .125") (FS: .125") (FS: .125") .350 550 .750 .625 1.400 2.060 1.400 G-7007 G-7022 G-7015 A (FS: .125") (FS: .125") (FS: .25")

\*FS: INDICATES SUGGESTED FLANGE SIZE

DIE IDENTIFICATION KEY: A EPDM Neoprene\* Town Dense Non Stock Item

A "W" included in the part number or the word "White" indicates that the part is white. All other parts are black.

17



### Automotive Style Dual Durometer During the process of extrusion, two different hardnesses of material are joined together to create a single piece profile. These parts provide a higher level of performance, strength, and aesthetic appeal. The wire carrier within the grip is fully encapsulated by dense rubber for added protection. .866 .650 .933 1.300 1.250 G-7053 G-7054 G-7091 (FS: .20") (FS: .17") (FS: .30") - .600 590 1.165 905 .665 G-7123 A G-7124 A G-7111 A (FS: .15") (FS: .18") (FS: .23") G-7149 🔺 (FS: .19") .728 2.500 843 618 G-7145 A .866 (FS: .25") ZPS-5460 A ZPS-5516 A (FS: .17") (FS: .11") .984 2.125 .575 .858

\*FS: INDICATES SUGGESTED FLANGE SIZE

←

1.306

G-7188 🔺

(FS: .22")

DIE IDENTIFICATION KEY: 🛕 EPDM 📕 Neoprene\* 🔵 Nitrile 🛨 Dense 🗸 Non Stock Item

A "W" included in the part number or the word "White" indicates that the part is white. All other parts are black.

ZPS-5490 A

(FS: .18")

ZML-6705 A

(FS: .23")

Both manufacturer and distributor specifically, but not by way of limitation, disclaims any and all liability for the use or performance of the products in any application(s) other than those application specified for such product(s) in this catalog and any such non-specified use voids any otherwise applicable warranty and is at the purchaser's sole risk and liability.

\*Not Suitable for use with any form of ethylene glycol-type engine coolants.

\*\*Not Suitable for gasoline/oil mixed fuels, alcohol blended fuels, or biodiesel fuel

### SAE 11527 USGG Type A2 Hard Wall Fuel Fill Hose

Designed for tight bend radius, this multi-purpose hose is excellent for marine, automotive, RV, industrial, and commercial fuel fill low-pressure applications. This premium fuel fill hose handles leaded, unleaded, alcohol-added, diesel, biodiesel, and ethanol-based fuels. Resistant to heat, weather, abrasion, and ozone.

Application: Fuel Transfer

Gas Tank Filler

Specifications: SAEJ1527 USCG Type A2

Cover Color: Black with Red Stripe

Construction

Tube: Nitrile (NBR)

Reinforcement: Two plies Synthetic Fabric with

Helix Wire

Cover: Nitrile (NBR)

Temperature Range: -30 Degree F to 212 Degrees F

Product Number	Inside Diameter (in.)	Length (ft.)	Description	Packaging
R-FFW-0.75	3/4	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-1.00	1	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-1.125	1 1/8	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-1.250	1 1/4	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-1.50	1 1/2	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-1.750	1 3/4	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll
R-FFW-2	2	50	SAE J1527 Type A2 Fuel Fill Hose w/wire	Roll

### SAE 11527 USCG Type A2 Soft Wall Fuel Fill Hose

This hose meets the same standards as our hard wall fuel fill hose, but is not wire reinforced. This product is particularly suitable for "straight run" or "minimal bend" fuel transfer applications where additional reinforcement is not necessary.

Application: Fuel Transfer

Gas Tank Filler

Specifications: SAEJ1527 USCG Type A2
Cover Color: Black with Red Stripe

Construction

Tube: Nitrile (NBR)

Reinforcement: N/A

Cover: Nitrile (NBR)

Temperature Range: -30 Degrees F to 212 Degrees F

Product Number	Inside Diameter (in.)	Length (ft.)	Description	Packaging
R-SWFF-1.00	1	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll
R-SWFF-1.125	1 1/8	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll
R-SWFF-1.250	1 1/4	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll
R-SWFF-1.50	1 1/2	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll
R-SWFF-1.750	1 3/4	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll
R-SWFF-2	2	50	SAE J1527 Type A2 Softwall Fuel Fill Hose	Roll

\*Not Suitable for use with any form of ethylene glycol-type engine coolants.

\*\*Not Suitalbe for gasoline/oil mixed fuels, alcohol blended fuels, or biodiesel fuel.

### SAE J30R7 Standard Fuel Line

Designed to carry fuels in automotive, powersport, and small engine applications. Withstands oil, grease, abrasion, and ozone. Ideal for low-pressure applications.

Application: Fuel Feed and Return Lines

Specifications: SAE J30R7

Cover Color: Black

Construction

Tube: Nitrile (NBR)

Reinforcement: Textile CPE Cover:

Temperature Range: -29 Degrees F to 257 Degrees F



Product Number	Inside Diameter (in.)	Length (ft.)	Description	Packaging
DM-FL1875	3/16	275	SAE J30R7 Fuel Line	Spool
DM-FL250	1/4	250	SAE J30R7 Fuel Line	Spool
DM-FL3125	5/16	250	SAE J30R7 Fuel Line	Spool
DM-FL375	3/8	250	SAE J30R7 Fuel Line	Spool
DM-FL500	1/2	250	SAE J30R7 Fuel Line	Spool
DM-FL59375	19/32	250	SAE J30R7 Fuel Line	Spool
DM-FL625	5/8	250	SAE J30R7 Fuel Line	Spool
DM-FL750	3/4	150	SAE J30R7 Fuel Line	Spool

### SAE J30R11-AET2 Low-Permeation/Low-Pressure Fuel Line

SAE J30R11-AET2 is a low-permeation fuel hose engineered to restrict fuel vapor leakage, playing an important role in meeting stringent emissions standards and ensuring the proper functioning of fuel fill and vent systems. Resistant to heat, weather, abrasion and ozone. Designed for low-pressure applications like fuel fill and vapor lines.

Application: Fuel Line

Vent Lines

SAE J30R11-AET2 Specifications:

(Meets EPA and CARB Standards)

Nitrile Core

Cover Color: Black

Construction

Tube: Nitrile (NBR)

Barrier: CPT Cover: CM

Temperature Range: -40 Degrees F to 257 Degrees F



Product Number	Inside Diameter (in.)	Length (ft.)	Description	Packaging
DM-CP30R11250	1/4	250	SAE J30R11-AET2 Low Perm Fuel Hose	Spool
DM-CP30R113125	5/16	250	SAE J30R11-AET2 Low Perm Fuel Hose	Spool

\*Not Suitable for use with any form of ethylene glycol-type engine coolants

\*\*Not Suitalbe for gasoline/oil mixed fuels, alcohol blended fuels, or biodiesel fuel

### GREENbar SAE 130R14T2 Low-Permeation Fuel Hose

GREENbar SAE J30R14T2 fuel hose is top-of-the-line. Its multi-layer construction and proprietary technology give it exceptional resistance to a variety of fuels and enables it to meet stringent low-permeation EPA and CARB emission standards. Common uses of this product include fuel lines in motorized and non-motorized RVs. Off Road Vehicles, Specialty Vehicles, and Mass Transit (Bus) Industries. Not recommended for immersion in fuel

Application: Fuel Line

Specifications: GREENbar SAE J30R14T2

(Meets EPA and CARB standards)

Cover Color: Black

Construction

Inner Layer: Nitrile (NBR)

Barrier Layer: CPT

Tie Layer: Nitrile (NBR) Reinforcement: Polvester

Cover: Chlorinated Polyethylene

-40 Degrees F to 175 Degrees F Temperature Range:



Product Number	Inside Diameter (in.)	Length (ft.)	Description	Burst Pressure (PSI)	Packaging
A-CPFL1875	3/16	225	GREENbar SAE J30R14T2 Fuel Hose	650	Spool
A-CPFL250	1/4	400	GREENbar SAE J30R14T2 Fuel Hose	550	Spool
A-CPFL3125	5/16	360	GREENbar SAE J30R14T2 Fuel Hose	425	Spool
A-CPFL375	3/8	150	GREENbar SAE J30R14T2 Fuel Hose	400	Spool

### Diesel Exhaust Fluid (DEF) Transfer Hose

Our DEF Transfer Hose is specifically designed to transport high-purity, aqueous urea solution, known as Diesel Exhaust Fluid. Diesel Exhaust Fluid is a key component of selective catalytic reduction (SCR) systems, and the DEF Transfer hose helps ensure that the fluid remains pure, aiding in the vehicle's compliance with strict emissions regulations. Our DEF Transfer Hose is exclusively Made in the USA.

Application: Diesel Exhaust Fluid Transfer

Cover Color: Black

Construction

Tube: Peroxide Cured EPDM

Reinforcement: Polyester

Cover: Peroxide Cured EPDM

Temperature Range: -40 Degrees F to 125 Degrees F

Product Number	Inside Diameter (in.)	Length (ft.)	Description	Burst Pressure (PSI)	Packaging
A-DEF-T-0.50	1/2	100	DEF Transfer Hose	190	Spool
A-DEF-T-0.75	3/4	75	DEF Transfer Hose	160	Spool
A-DEF-T-1.0	1	100	DEF Transfer Hose	130	Spool

A-DEF-T-1.0 Made In USA

\*Not Suitable for use with any form of ethylene glycol-type engine coolants.

### SAE J20R3 Class D2 Heater/Coolant Hose

SAE J20R3 D2 Heater/Coolant Hoses are available for various automotive aftermarket requirements per specific OE chassis builders. This high-quality product, with its high-temperature resistance, excellent ozone resistance, and low oil resistance, provides an extra-long service life on automotive and truck cooling system applications.

Application: Automotive and Truck Cooling Systems

Specifications: SAE J20R3 D2

Cover Color: Black

Construction

Tube: **EPDM** 

Reinforcement: Two-spiral Rayon

Cover: **EPDM** 

-40 Degrees F to 257 Degrees F Temperature Range:



Product Number	Inside Diameter (in.)	Length (ft.)	Description	Packaging
GR-HHS625	5/8	500	SAE J20R3 Class D2, Heater Hose	Spool
GR-HHS-D2750	3/4	500	SAE J20R3 Class D2, Heater Hose	Spool



### Windshield Wiper/Vacuum Tubing

SAE J1037 EPDM tubing is a non-reinforced, extruded hose for lowpressure applications, primarily used in windshield washer and vacuum systems. This durable and flexible rubber tubing is built to resist heat, weathering, and ozone, and it remains pliable in cold temperatures.

Windshield Washer/Vacuum Application:

Specifications: Meets SAE J1037

FDA CFR 177.2600

Cover Color: Black

Construction

**EPDM** Tube: Reinforcement: None Cover: N/A

Temperature Range: -40 Degrees F to 257 Degrees F



Product Number	Diameter (in.)	Outer Diameter (in.)	Length (ft.)	Description	Packaging
VT1563HW	0.1563	0.360	500	Windshield Wiper/Vacuum Tubing	Reel
VT2188	0.2188	0.410	500	Windshield Wiper/Vacuum Tubing	Reel

# **HOSE / HARNESS PROTECTION**

### Thermal Reflective Sleeve

Thermal Reflective Sleeve is a woven, one-piece fiberglass sleeve that is bonded with an aluminized heat-seal film using a polymeric adhesive. The sleeve's smooth outer surface helps provide improved protection for components that are exposed to radiant heat. Providing superior fluid resistance, Thermal Reflective Sleeve is engineered to protect hoses and wire harnesses in all On and Off Highway vehicles.

Application: Heat Protection

Specifications

Flammability: SAE J369: Self-Extinguishing Fluid Resistance: Passes BH100-003B Testing

Construction

Outer Layer: Aluminum

Inner Layer: Fiberglass multifilament
Operating Temperature: Up to 392 Degrees F

Product Number	Length (ft.)	Description	Packaging
FM-RFSL-4332516S	250	25MM Thermal Reflectivesleeve	Spool
FM-RFSL-11563B	125	32MM Thermal Reflectivesleeve	Spool
FM-RFSL-4335116S	125	51MM Thermal Reflectivesleeve	Spool
FM-RFSL-4336416S	125	64MM Thermal Reflectivesleeve	Spool



### Typical Applications

- Heater Hoses
- Air Conditioning hoses
- Brake tubes and hoses
- Power steering hoses
- Cable assemblies
- Wire harnesses

### FlexGuard Sleeve

FlexGuard is a highly flexible, expandable sleeve designed to provide exceptional abrasion and mechanical resistance for hoses, wire harnesses, and other crucial components. Designed to prevent frustrating end fray, FlexGuard's unique construction allows it to expand up to three times its own diameter, making installation fast and simple.

Application: Abrasion Protection

Specifications

Flammability: SAE J369: "B" Classification
Fluid Resistance: No degradation in standard

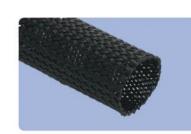
automotive fluids

Construction: Dual monofilament

Polyester monofilament Nylon monofilament

Operating Temperature: Up to 302 Degrees F

Product Number	Length (ft.)	Description	Packaging
FM-FG-2611303	1,000	13MM FlexGuard Sleeve	Spool
FM-FG-2612503	300	25MM FlexGuard Sleeve	Spool



**Typical Applications** 

- Hoses and Tubes
- Wire harnesses

# **CLEAN TRIM MOLDINGS**

Clean Trim is the premier aftermarket moldings used by manufacturers and refitters as the original equipment moldings. An assortment of molding is available for the sides of automobile, door edges, sills, and drip rails.

# Body Side



# €M

# **Acrylic Foam Tape**

For super attachment of trim and moldings

- OEM preferred performance
- Instant adhesion to basecoat/clearcoat paints
- Field-proven reliability

# Drip Rail





# "L" & "J" Style







# Door Edge Guard

### "with Hot Melt Adhesive"









# MISSION - VALUES - VISION



### **Our Mission**

Clean Seal, Inc. is dedicated to selling the highest quality extruded rubber seals, fuel hose, and other various product lines to our customers, while providing exceptional customer service. We honor GOD with our honesty and upstanding behavior in all business activities and interactions. We strive to inspire our expert staff to be successful in all tasks performed, while being fair and understanding to all. Our success, together, ensures a solid and profitable future to our employees, our customers, and to the owners of Clean Seal, Inc.

# **Our Core Values**

- ➤ Integrity: Being honest and sincere with others and having strong morals and values.
- ➤ Accountability: Taking responsibility for work performed as well as how we talk to and treat others.
- Respect and Humility: Showing admiration to others due to their abilities, qualities, or achievements. Not putting yourself above others.
- ➤ Quality: Excellent product or work. Taking pride in the products you make and how you perform.
- ➤ Teamwork: Working together, helping and building up each other to achieve success.
- ➤ Safety: Concern for each other's well-being.
- ➤ Thankfulness: Gratitude and appreciation for Clean Seal, coworkers, and customers.

### **Our Vision**

- > To be known as the most reliable and highest quality supplier to each customer.
- Create a tight-knit team atmosphere that feels like a family.
- Maintain growth, profitability, and cultivate individual development for long term sustainability.

# THANK YOU

Over the past 45 plus years, Clean Seal has welcomed the opportunity to serve customers to the best of our ability. In the past 4 decades, we have nurtured an idea that began on a kitchen table, and with hard work, determination, and care, our staff has helped grow this company into what it is today.

The amazing relationships and friendships that we have developed over the years with our customers also defines our success. Listening to our customers' needs, and then working hard to provide for those needs with the best quality products possible, remains our continuous goal. We truly appreciate the trust our customers place with us, and we are committed to ensure your success and satisfaction is achieved.

First and foremost, I thank GOD for providing Clean Seal with an excellent team and the individual abilities to perform all processes necessary of a successful company. His constant quidance and protection will sustain us always, day by day.

I also thank our customers for your continued patronage and partnership. Without you, there would have been no reason for Clean Seal to open our doors more than 45 years ago. We are truly honored to serve you and greatly value your relationship. We look forward to many more years of partnership and success with you.

Sincerely,

Jeremy Klotz

Ferenny Klotz

President

















CLEAN SEAL®, INC.

20900 Ireland Road • P.O. Box 2919 South Bend, Indiana 46680-2919 800-366-3682

CLEAN SEAL, INC.

www.CLEANSEAL.com