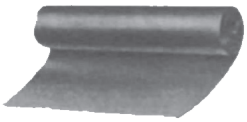
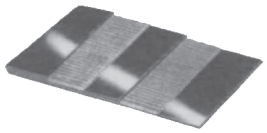
SHEET GOODS & GASKETS

40

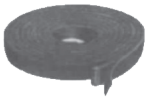
Die Cut **Pg. 160**

MIL-Spec Sheet **Pg. 161**

Commercial Sheet   **Pg. 162**

Fluoro Elastomers Silicone
Viton **Pg. 165**

Sponge Sheet MIL Spec
Open Cell—Closed Cell **Pg. 166**

Sponge Strips (46-Series)  PSA Backing **Pg. 167**

LONGWOOD

ILLUSTRATIONS BELOW NOT TO SCALE

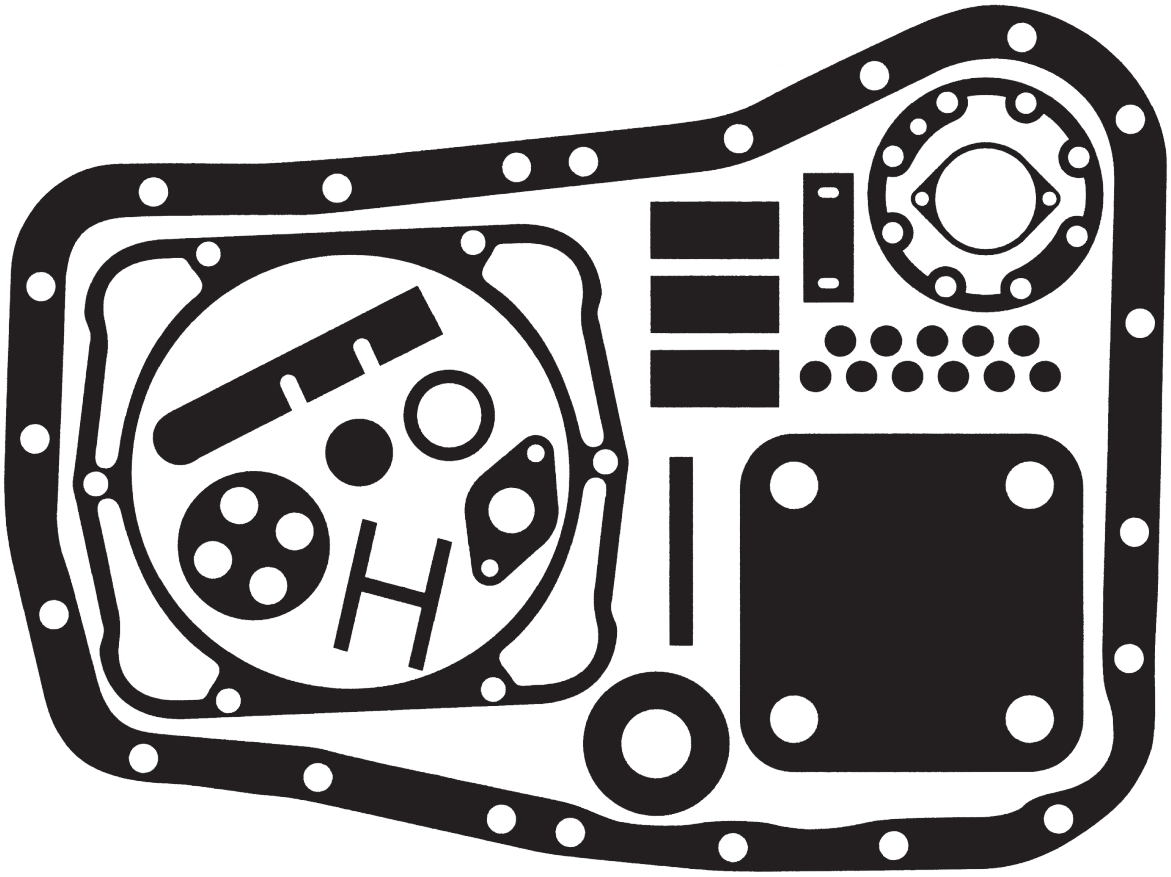
Die Cutting

Short or Long Production Runs

MATERIALS:
(COMMERCIAL & MILITARY SPEC)
- Open/closed cell sponge rubber
- Cork/rubber
- Rubber sheet packing—all polymers
- Silicone
- Diaphragm sheet
- Masticated rubber

ADDITIONAL FABRICATION:
- Slitting
- Laminating (PSA)

PRODUCTS:
- Gaskets
- Washers
- Seals
- Shims
- Strips
- Pads



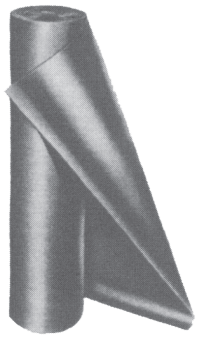
LONGWOOD

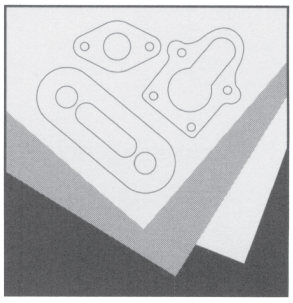
MILITARY SPECIFICATION SHEET RUBBER

ILLUSTRATIONS BELOW NOT TO SCALE

AMS 3205 Low Temperature
AMS 3207 Weather Resistant
AMS 3208 Weather Resistant
AMS 3209 Weather Resistant
AMS 3212 Aromatic Fuel Resistant
AMS 3215 Fuel Resistant
AMS 3240 Weather Resistant
AMS 3241 Weather Resistant
MIL-G-1086
MIL-G-1149 Type I, CL. I, Gr. 50 Neoprene
MIL-G-1149 Type II, CL. I, Gr. 65 Neoprene
MIL-G-1149 Type I, CL. I, Gr. 50 Buna-N
MIL-G-1149 Type II, CL. V, Gr. 65 Buna-N
MIL-G-23621
MIL-R-900
MIL-R-1229 (Ships)
MIL-R-2765 Buna-N
MIL-R-3065 SC 310 F[1] Neoprene
MIL-R-3065 SC 410 F[2] Neoprene
MIL-R-3065 SC 515 F[2] Neoprene
MIL-R-3065 SC 615 F[2] Neoprene
MIL-R-3065 SC 715 F[2] Neoprene
MIL-R-3065 SC 815 F[1] Neoprene
MIL-R-3065 SB 410 F[2] Buna-N
MIL-R-3065 SB 515 F[2] Buna-N
MIL-R-3065 SB 615 F[2] Buna-N
MIL-R-3065 SB 715 F[2] Buna-N
MIL-R-3065 SB 815 F[2] Buna-N
MIL-R-6855 (1-40) Fuel Resistant
MIL-R-6855 (1-50) Fuel Resistant
MIL-R-6855 (1-60) Fuel Resistant
MIL-R-6855 (1-70) Fuel Resistant
MIL-R-6855 (1-80) Fuel Resistant

MIL-R-6855 (2-40) Oil Resistant
MIL-R-6855 (2-50) Oil Resistant
MIL-R-6855 (2-60) Oil Resistant
MIL-R-6855 (2-70) Oil Resistant
MIL-R-6855 (2-80) Oil Resistant
MIL-R-15624
MIL-R-23652
MIL-R-25897
MIL-R-83248
ASTM D2000
4AA410A13B13C12F19
2AA515A13B13C12F19
2AA615A13B13C12F19
2AA715A13B13C12F19
2BC410A14B14C12EO34F17
2BC515A14B14C12EO34F17
2BC615A14B14C12EO34F17
2BC715A14B14C12EO34F17
5BG410A14B14EO1434F17
5BG515A14B14EO1434F17
5BG6150A14B14EO1434F17
5BG715A14B14EO1434F17
HH-G-156
HH-P-151E (C.I. Sheet)



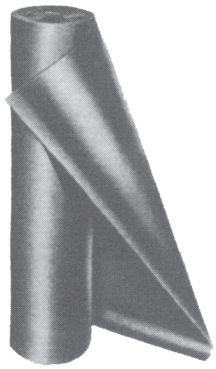


Commercial or mil-spec.
Call: 1-800-829-7231

ROLLS / SHEET / DIE-CUT
ALL MATERIALS!

LONGWOOD

ILLUSTRATIONS BELOW NOT TO SCALE



Commercial and Spec Compounds

Call 1-800-829-7231 for pricing and availability

(Below are typical properties and applications)

Longwood can die-cut, slit, or laminate sheet goods!

Oil- and Ozone-Resistant Neoprene Sheet — Black

Neoprene sheet is specially compounded to provide good resistance to oils and gasoline in such applications as gaskets and flanges in gas-permeable situations. Also applicable for bumpers, pads, and sealing usages.

A commercial blend, Neoprene compound, adaptable to extreme weather conditions since it resists rotting, checking, and cracking due to ozone exposure. Has good low-temperature flexibility and is oil-resistant. Meets ASTM specifications for 1BC material.

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll	Durometer Shore A ±5	Tensile PSI	Elongation %
1/64	36	0.4	180	40	1200	400
1/32	36	0.8	150	50	1300	350
1/16	36	1.4	100	60	1500	200
3/32	36	2.1	75	70	1500	200
1/8	36	2.7	50	80	1500	150
3/16	36	4.2	40			
1/4	36	5.6	25			

Specifications: ASTM D-2000 Type BC Mil-R-3065 SC

Temperature Range: -40˚ to 180˚F

Color: Black

Oil-Resistant Nitrile Sheet — Black

Excellent for all types of washers, gaskets, and seals which require resistance to conditions of oils and aromatic fuels. Typical applications include carburetor gaskets, fuel pumps, diaphragms, and aircraft hose gaskets.

Nitrile has superior chemical resistance which increases adaptability to many applications. Excellent resistance to mineral and vegetable oils, acids, and bases with the exception of those having strong oxidizing effects. Resistance to heat aging is good.

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll	Durometer Shore A ±5	Tensile PSI	Elongation %
1/32	36	0.9	150	40	1000	500
1/16	36	1.6	100	50	1500	400
3/16	36	2.4	65	60	1500	300
1/8	36	3.1	50	70	1500	200
3/16	36	4.8	30	80	1500	150
1/4	36	6.3	25			

Specifications: ASTM D-2000 Type BE Mil-R-3065 SC

Temperature Range: -40˚ to 200˚F

Color: Black

ILLUSTRATIONS BELOW NOT TO SCALE

Ozone-Resistant EPDM Sheet — Black

Excellent for applications which involve extreme temperatures and/or weather conditions. It is used extensively in high-temperature gasket installations.

Offers ozone and chemical resistance as well as resistance to extreme temperatures. Also provides excellent electrical and dynamic properties. Excellent resistance to animal and vegetable oils, water, steam, and oxygenated solvents.

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/16	36	1.2	100
3/32	36	1.8	75
1/8	36	2.4	50
3/16	36	3.6	40
1/4	36	4.8	40

Durometer Shore A ±5	Tensile PSI	Elongation %
65	1500	350

Specifications: Mil-R-3065 RS 615 ASTM D-2000 Type BA

Temperature Range: -40˚ to 220˚F

Color: Black

Butyl Sheet — Black

Many applications from gaskets and washers to press pads. Very popular with manufacturers of tire inner liners and inner tubes.

Butyl is a non-oil-resistant compound which has good resistance to gas permeation, acids, alkalies, and ozone at moderately high temperatures. Resists weathering, sunlight, water absorption, corona, and animal and vegetable oils. Resistance to flexing and abrasion is outstanding.

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/32	36	0.6	150
1/16	36	1.3	100
3/32	36	1.9	75
1/8	36	2.5	50
3/16	36	3.8	40
1/4	36	5.0	20

Durometer Shore A ±5	Tensile PSI	Elongation %
50	1000	350
60	1000	350

Specifications: ASTM D-2000 Type BA

Temperature Range: -40˚ to 225˚F

Color: Black

Pure Gum Floating Stock

For installation requiring high tensile and elongation characteristics along with superior abrasion resistance. Also suitable for applications requiring a soft rubber seal. Natural rubber conforms to irregular flanges with bolt loads.

Highly resilient, excellent abrasion and acid resistance and high tensile and tear strength. Bonds effectively to a wide range of materials. Resists most organic salts, acids, and alkalies. Compound is non-marking and non-toxic.

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/32	36	0.5	150
1/16	36	1.0	100
3/32	36	1.4	75
1/8	36	1.9	50
3/16	36	2.9	40
1/4	36	3.8	40
1/8	36	5.7	30
1/2	36	7.6	30

Durometer Shore A ±5	Tensile PSI	Elongation %
40	3000	600

Specifications: ASTM D-2000 Type AA

Temperature Range: -20˚ to 140˚F

Color: Tan Floating Stock

1-800-829-7231

LONGWOOD

ILLUSTRATIONS BELOW NOT TO SCALE

Styrene Butadiene Rubber Sheet — Red (SBR)

Recommended for low-pressure applications such as washers and gaskets for the heating and plumbing trades. Low-cost flange gasket material.

An economical, non-oil-resistant compound that resists flow under compression. Offers moderate to good performance against low pressure and good aging, abrasion resistance, and tear resistance. Easily conforms to uneven flange surfaces.

Red SBR Rubber

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/16	36	1.8	60
3/32	36	2.6	40
1/8	36	3.5	30
3/16	36	5.3	20
1/4	36	7.0	15

Durometer Shore A ±5	Tensile PSI	Elongation %
75	400	150

Specifications:
ASTM D-2000 Type AA
ASTM D-1330-66 Class II

Temperature Range:
-20˚ to 170˚F

Color: Red

Cloth-Inserted SBR Sheet

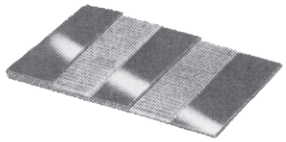
Excellent flange gasket material for air, hot and cold water, saturated steam, low-pressure steam, or hydraulic services. Suited for all types of gauges, meters, and valves where pressure areas are subject to movement.

A tough SBR compound and close-weave polyester fabric construction. Perfect for custom-cutting and off-size applications and provides both flexibility and uniform structural strength. One ply of fabric per 1/16″ thickness.

Cloth-Inserted SBR Rubber

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/16	36	1.5	135
1/8	36	2.9	65
3/16	36	4.4	35
1/4	36	5.8	35

Durometer Shore A ±5	Tensile PSI	Elongation %
75	400	150



Specifications:
1-ply per 1/16″ thickness

Temperature Range:
-20˚ to 170˚F

Color: Black

Neoprene Diaphragm Sheet

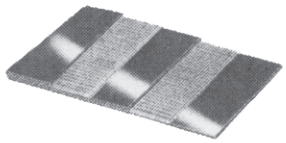
Strong, flexible, premium packing material used to transmit motions between fluids, gases, and air in gauges, meters, and valves.

An excellent weatherstripping material. Manufactured with a high-quality neoprene compound for long service. Reinforced with high quality polyester for balanced structural strength over entire diaphragm area.

Neoprene Diaphragm Sheet

Thickness	Width	Weight/ Lin. Ft. (lb).	Approx. Ft./Roll
1/16	48	2.0	100
1/8	48	4.0	50
3/16	48	6.0	25
1/4	48	8.0	25

Durometer Shore A ±5	Tensile PSI	Elongation %
70	1100	300

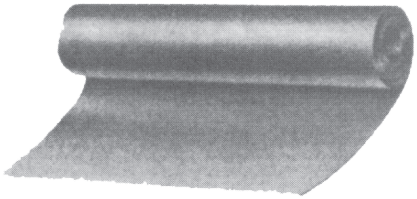


Specifications:
1-ply per 1/16″ thickness

Temperature Range:
-20˚ to 200˚F

Color: Black

ILLUSTRATIONS BELOW NOT TO SCALE



Viton

Durometer: 80 ±5
Temperature Range: -10˚ to 500˚F
Color: Black

Also available at same pricing: White-FDA-60 Duro, Black 55 Duro, Brown 80 Duro.
Minimum order: 1 square yard

Fluoroelastomers (Fluorel®, Viton®)

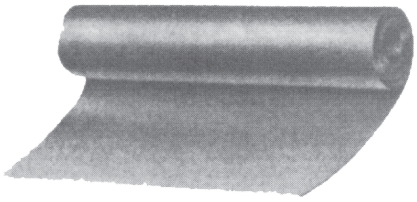
Special Assets: Fluoroelastomers are high-technology elastomers designed for extreme heat, oil, and chemical resistance. Products are nearly equal to silicone materials in heat resistance while resisting aliphatic aromatic and halogenated hydrocarbons, concentrated acids and alkalis, and animal and vegetable oils. Vulcanizates have higher tensile strength than silicones.

Restrictions: Fluoroelastomers are not generally resistant to ketones, low-molecular-weight esters (such as ethyl acetate), or nitro-containing compounds. Products are not usually serviceable below -15˚F. Fluoroelastomers are premium-priced materials.

Fluoroelastomers are available in the following specifications:

Du Pont Viton*, 3M Fluorel*, AMS-7276, AMS-7278, AMS-7279, AMS-8280, ASTM D2000HK, MIL-R-23652, MIL-R-25897, MIL-R-81555, MIL-R-83248

Longwood also supplies:
- Extrusions
- Fabric-inserted Viton® sheet
- Nuclear grade Viton®
- Large custom gaskets & seals
- Viton® with fiberglass or Nomex® reinforcing
- Materials for flue duct expansion joints
- Molded rectangle flue duct expanision joints
- Molded parts
- Food grade Viton®
- White or colored Viton®



Silicon Sheet

Durometer: 40—80 ±5
Temperature Range: -60˚ to 500˚F
Color: Red

A partial list of the specifications Longwood is capable of manufacturing:
(*Please contact us for your requirements*)

American Society of Testing Materials
ASTM D2000 SAE J200 FC FE FK GE

Military Specifications
MIL R 46089 Grade M & F Sponge
MIL R 3065 B & MIL STD 417 (TA) 405 407 505 506 507 510 512 605 606 607 608 610 612 705 706 707 710 805 806 807 810
MIL C 3133 Sponge
MIL R 6130 TY 2 Grade C Sponge
MIL R 25988 TY 1, TY 2, Class 1 40-80 Duro, Class 2 & 3
ZZ-R-765C Class 1A, 1B 40-80 Duro,
Class 2A, 2B, 25, 40-80 Duro,
Class 3A 30, 50-80 Duro
Class 3B 30, 50-80 Duro
MIL R 5847 Class 1A, 1B, 2A, 2B 40-80 Duro, Class 3A & B
MIL R87175 70, 80 Duro

Longwood also offers premium sheet stock and coated fabrics through its Fairprene division.
For more information, please visit: www.fairprene.com

ILLUSTRATIONS BELOW NOT TO SCALE

Open Cell / Closed Cell Sponge Rubber

(All Polymers)

The Ultimate Weatherstripping

Specifications:
ASTM-D 1056 Class RO-13
Medium/Firm Density

Color: Black

Closed cell sponge is available in sheet and strip form, with and without PSA backing.

See Series 46 next page for Closed Cell Sponge PSA Backed strips

What is closed cell sponge?

Closed cell sponge is an expanded, cellular rubber. A rubber compound incorporating gas-forming ingredients is subjected to heat and pressure, which when released allows the gas to expand and form a sponge of non-connecting, gas-tight cells.

How does closed cell sponge differ from open cell?

Closed cell sponge consists of relatively small, non-connecting, gas-tight, individual cells. Open cell sponge consists of relatively large, interconnected cells.

In what thicknesses is closed cell sponge available?

Closed cell sponge is manufactured in thicknesses from 1⁄16″ through 2″.

In what grades is closed cell sponge available?

Closed cell sponge is available in soft (2 to 5 lbs. compression-deflection), medium (5 to 9 lbs. compression-deflection), and firm (9 to 13 lbs. compression-deflection).

Which of the various types of closed cell sponge have the best properties for oil resistance, ozone resistance, etc.?

Generally, neoprene/EPDM/SBR sponge is considered the best all-around material. Nitrile sponge is considered the best for oil and chemical resistance. The following table gives the characteristics of the various elastomers for the listed properties.

Property	Neoprene EPDM/SBR	Nitrile	Ozone
Ozone resistance	Good	Good	Excellent
Weather resistance	Good	Good	Excellent
Oil resistance	Good	Excellent	Fair
Low temp. resist.	Good	Good	Excellent
High temp. resist.	Good	Good	Excellent
Heat insulation	Excellent	Excellent	Excellent
Min. water absorp.	Excellent	Excellent	Excellent
Chemical resist.	Excellent	Excellent	Good

Where can closed cell sponge be used?

Closed cell sponge can be used in a great variety of applications. It is employed for gasketing, sealing, cushioning, vibration dampening, packaging, and insulation, among other things. For example, closed cell sponge has been used for:

- Weatherstripping (adhesive and non-adhesive back)
- Sealant against air and liquids with light-gauge metals
- Automotive applications such as headlight gaskets
- Small appliance cushion
- Camper and trailer door window gaskets
- Electrical box seals
- Cushion and non-skid pads on office machines
- Tractor cab gaskets
- Refrigerated cooler gaskets

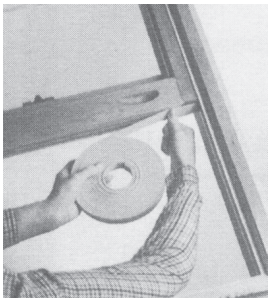
Will cell sponge be available with adhesive?

Closed cell sponge sheets with pressure-sensitive non-staining adhesive spread on one side and protected with release paper is available.

ILLUSTRATIONS BELOW NOT TO SCALE

Closed Cell Sponge Rubber

- Non-stretch fabric, self-adhesive backing
- Peel-off adhesive backing
- For all types of weatherstripping, dust-sealing, and sound control
- Seals out heat or cold
- Excellent cushioning characteristics
- Stop noisy vibration
- Closed cell to resist moisture



Closed Cell Sponge Stripping with Adhesive

Part #	Description	Feet Per Roll
46-100	1/16 x 3/8	100
46-101	1/16 x 1/2	100
46-102	1/16 x 5/8	100
46-103	1/16 x 3/4	100
46-104	1/16 x 7/8	100
46-105	1/16 x 1	100
46-106	1/16 x 1 1/2	100
46-107	1/16 x 2	100
46-108	1/16 x 2 1/2	100
46-109	1/16 x 3	100
46-110	1/8 x 3/8	75
46-111	1/8 x 1/2	75
46-112	1/8 x 5/8	75
46-113	1/8 x 3/4	75
46-114	1/8 x 7/8	75
46-115	1/8 x 1	75
46-116	1/8 x 1 1/2	75
46-117	1/8 x 2	75
46-118	1/8 x 2 1/2	75
46-119	1/8 x 3	75
46-120	3/16 x 3/8	50
46-121	3/16 x 1/2	50
46-122	3/16 x 5/8	50
46-123	3/16 x 3/4	50
46-124	3/16 x 7/8	50
46-125	3/16 x 1	50
46-126	3/16 x 1 1/2	50
46-127	3/16 x 2	50
46-128	3/16 x 2 1/2	50
46-129	3/16 x 3	50
46-130	1/4 x 3/8	35
46-131	1/4 x 1/2	35
46-132	1/4 x 5/8	35
46-133	1/4 x 3/4	35
46-134	1/4 x 7/8	35
46-135	1/4 x 1	35
46-136	1/4 x 1 1/2	35
46-137	1/4 x 2	35
46-138	1/4 x 2 1/2	35
46-139	1/4 x 3	35

(Continued on next page)

Call 1-800-829-7231

SPONGE RUBBER

LONGWOOD

ILLUSTRATIONS BELOW NOT TO SCALE

Part #	Description	Feet Per Roll
46-140	5/16 x 3/8	25
46-141	5/16 x 1/2	25
46-142	5/16 x 5/8	25
46-143	5/16 x 3/4	25
46-144	5/16 x 7/8	25
46-145	5/16 x 1	25
46-146	5/16 x 1 1/2	25
46-147	5/16 x 2	25
46-148	5/16 x 2 1/2	25
46-149	5/16 x 3	25
46-150	3/8 x 3/8	20
46-151	3/8 x 1/2	20
46-152	3/8 x 5/8	20
46-153	3/8 x 3/4	20
46-154	3/8 x 7/8	20
46-155	3/8 x 1	20
46-156	3/8 x 1 1/2	20
46-157	3/8 x 2	20
46-158	3/8 x 2 1/2	20
46-159	3/8 x 3	20
46-160	1/2 x 1/2	15
46-161	1/2 x 5/8	15
46-162	1/2 x 3/4	15
46-163	1/2 x 7/8	15
46-164	1/2 x 1	15
46-165	1/2 x 1 1/2	15
46-166	1/2 x 2	15
46-167	1/2 x 2 1/2	15
46-168	1/2 x 3	15

Longwood will supply strips in a roll—easy use and convenient storage

Closed Cell Sponge Rubber Strips

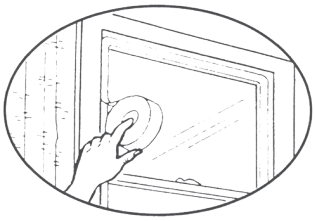
Neoprene/EPDM SBR
Soft-Style 7401-A or Medium Style 7402-A

Specifications:
- ASTM D 1056-67 SCE-41 or 42
- ASTM D 1056-78 RE-41 or 42
- ASTM D 1056-87 SCE-41 or 42
- FMVSS-302
- SAE-J-18
- Mil-R-6130C II-A
- UL-94-HBF
- UL-94-HF1

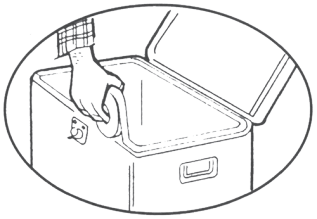
Tolerances comply with RMA Class 1

Adhesive:
- High tack, high strength
- 75 lb. lay-flat liner
- Polyester carrier

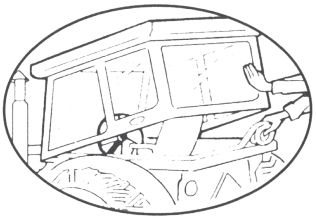
Applications:



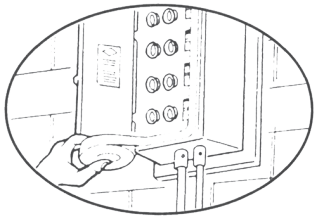
Weather sealing



Seal in cold
Seal out heat



Stop noisy vibration
Block dust & moisture



Seal out dirt/rain