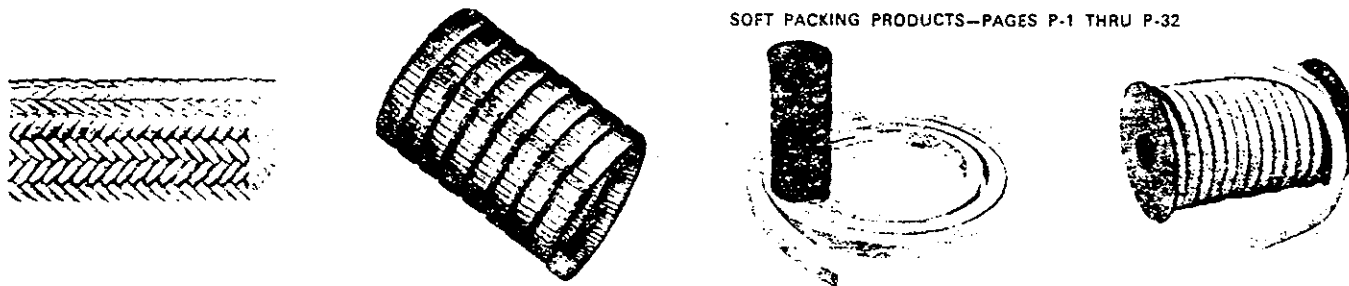


INDUSTRIAL PRODUCTS FOR PLANT AND EQUIPMENT MAINTENANCE

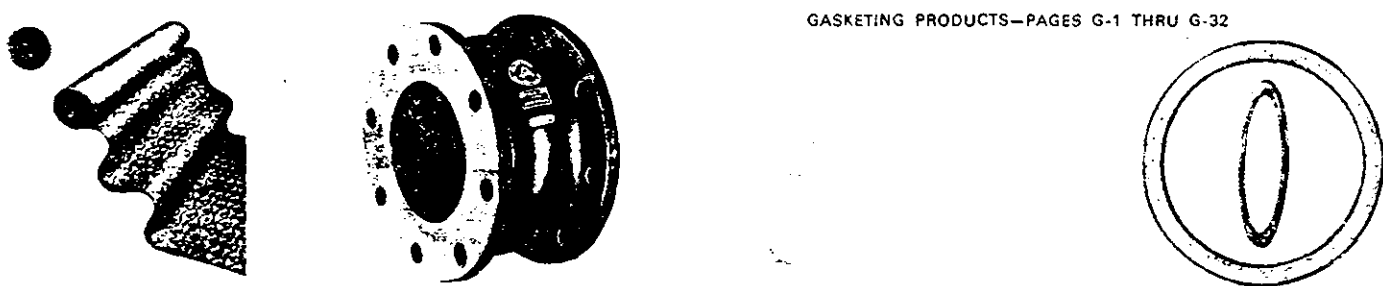
GARLOCK INC.

PALMYRA, NEW YORK 14522

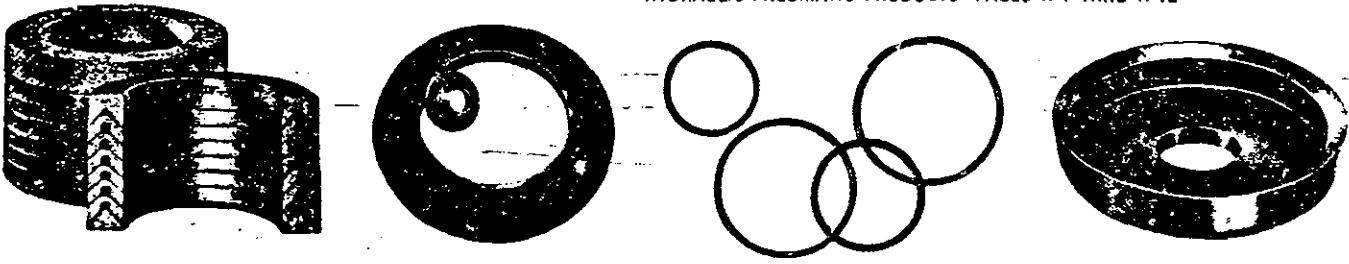
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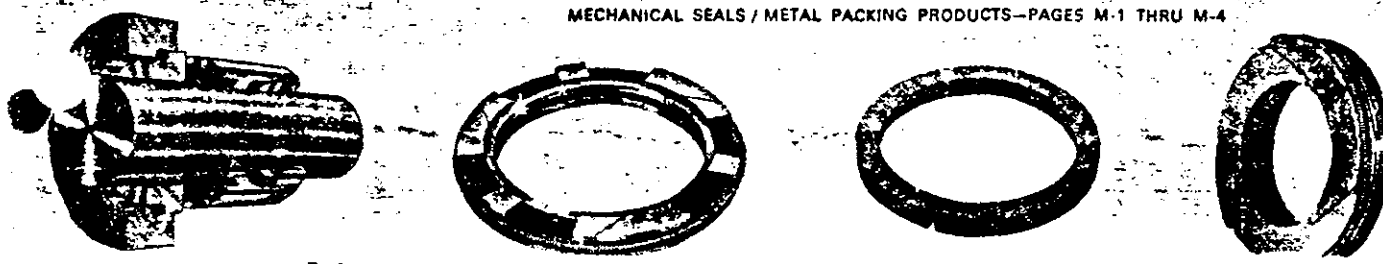
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GARLOCK CATALOG

About this catalog . . .

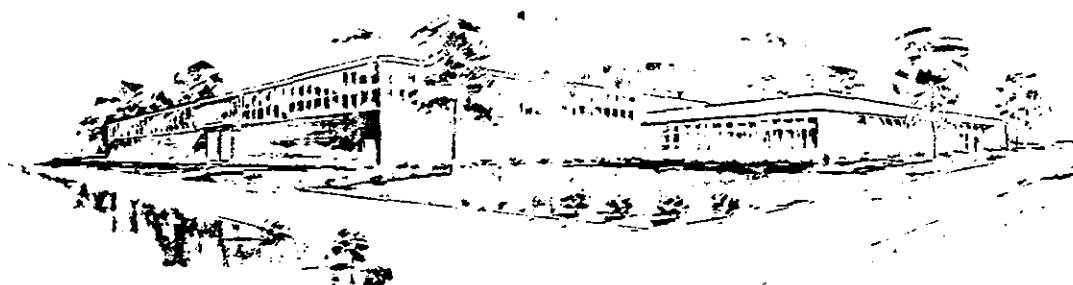
We are pleased to present our Garlock Plant and Equipment Maintenance Catalog. It has been organized to assist you in finding the maintenance products you require for your particular application. There are four sections: Hydraulic-Pneumatic; Gasketing; Soft Packing; and one section combining Mechanical Seals and Metal Packing. In these four sections you will find descriptive information on the complete line of products we offer for maintenance purposes. Each section has its own Product Index and Style Number Index. Page numbers have a distinguishing section prefix. On page T-1, you will find a Master Product Index for the entire catalog. Page T-4 presents a Master Style Number Index.

About Garlock . . .

Since 1887 Garlock has supplied its products to, and served industry throughout the world. Our insistence on quality and our desire to keep pace with modern technology has made our slogan "The Standard Packing of the World"® an accepted truism. And our concentrated research and development program, intense quality assurance program, growing facilities, expansion of distribution points and our trained representatives all have but one aim . . . to serve you better. We stand ready to be of assistance at any time.

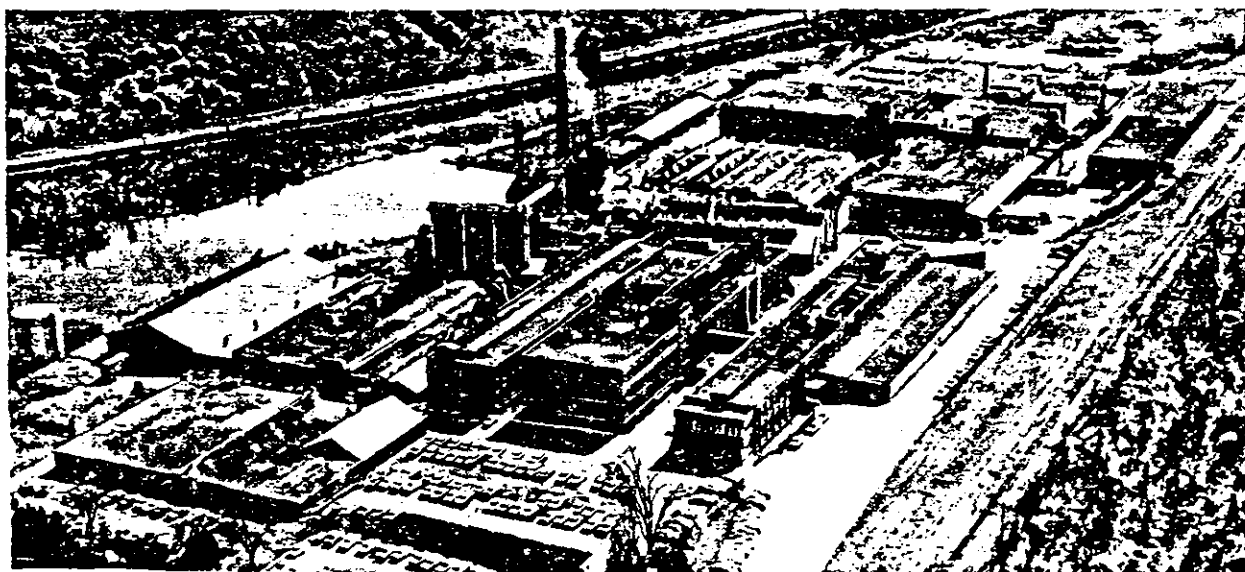
Please feel free to call upon your local representative or office, or if you prefer, contact us at Garlock Inc., Palmyra, New York 14522.

We hope you find this catalog truly helpful in selecting the quality Garlock products you need.



Canadian Office and Plant: Garlock of Canada Ltd., Toronto, Ontario

General Offices and Main Plant: Garlock Inc., Palmyra, N. Y.



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GARLOCK WARRANTY

Garlock Inc. guarantees that any product of its manufacture, which upon examination is found by a Garlock representative to be defective either in workmanship or material whereby it is not suitable under proper usage and service for the purpose for which designed, will be replaced free of charge including transportation charges but not cost of installation. This shall be Garlock's maximum liability. The sale of Garlock products under any other warranty or guarantee, expressed or implied, is not authorized by Garlock.

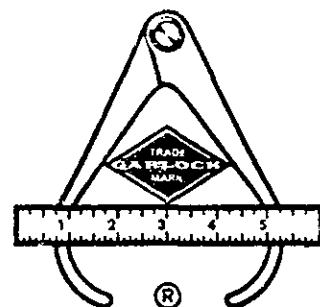
GARLOCK MATERIALS VS. VARIOUS MEDIA UNDER TYPICAL CONDITIONS

• This chart indicates the general suitability of basic materials commonly used in packings and gaskets against various media and is intended only for the general information of the packing user. Obviously the subject of the interaction of packing materials with the several liquids listed is too complex to be covered adequately in a few words. Although chemical considerations are important in the selec-

GARLOCK MATERIALS

medium	METALS	NATURAL RUBBER	SBR	NEOPRENE	NITRILE	SILICONE
Gases						
Air	Satisfactory, except lead melts above 600°F.	Satisfactory but becomes tacky above 200°F.	Satisfactory but hardens above 250°F.	Satisfactory but hardens and decomposes above 250°F.	Satisfactory but hardens above 250°F.	Satisfactory but deterioration accelerated above 300°F.
Oxygen	Satisfactory, except lead melts above 600°F.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.
Halogens (Chlorine, Bromine, etc.)	Satisfactory if free from water. Otherwise attacked.	Hardens on exposed surfaces.	Hardens on exposed surfaces.	Hardens on exposed surfaces.	Hardens on exposed surfaces.	Hardens on exposed surfaces.
Other Hot Gases or Dry Steam	Satisfactory below melting point. Not compressed H ₂ embrittles steel.	Satisfactory but becomes tacky above 200°F.	Satisfactory but hardens above 250°F.	Satisfactory but hardens and decomposes above 250°F.	Satisfactory but hardens above 250°F.	Satisfactory but decomposes in steam above 300°F.
LIQUIDS (including all neutral water-soluble salts, sugar solutions, etc.)	Satisfactory except for iron rusting.	Satisfactory but becomes tacky above 200°F.	Satisfactory but hardens above 250°F.	Not recommended.	Satisfactory but hardens above 250°F.	Satisfactory but decomposes above 300°F.
Alkaline Solutions	Satisfactory except lead, tin, zinc, aluminum and alloys.	Limited, depending on conditions, exposed surfaces become tacky.	Satisfactory but exposed surfaces swell.	Satisfactory but butyl rubber preferred.	Satisfactory but exposed surfaces swell.	Not recommended.
Weak Acid Solutions (including Acetic and other organic acids, sulphurous acid and low concentration of sulphuric acid and hydrochloric)	Copper, its alloys and stainless steels satisfactory; aluminum satisfactory in organic acids only and lead in all but acetic acid.	Satisfactory if free from acid-soluble fillers.	Satisfactory if free from acid-soluble fillers.	Satisfactory if free from acid-soluble fillers.	Satisfactory if free from acid-soluble fillers.	Not recommended.
Strong Acids Hydrochloric Acid	Not recommended except Hastelloy, gold and platinum.	Limited depending on conditions.	Limited depending on conditions.	Satisfactory up to 150°F. if free from acid-soluble fillers.	Limited depending on conditions.	Not recommended.
Sulfuric Acid Dilute up to 50%	Not recommended except Duriron, lead, gold and platinum.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Not recommended.
Concentrated Sulfuric Acid	Limited depending on conditions.	Not recommended.	Not recommended.	Not recommended.	Not recommended.	Not recommended.
Concentrated Acetic Acid (Glacial)	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.	Limited depending on conditions.
Nitric Acid	Not recommended except Duriron, gold and platinum. (Stainless Steel in concentrate but not dilute.)	Not recommended.	Not recommended.	Not recommended.	Not recommended.	Not recommended.
Aqua Ammonia	Satisfactory except copper and its alloys.	Satisfactory but becomes tacky above 200°F.	Satisfactory but hardens above 250°F.	Not recommended.	Satisfactory but hardens above 250°F.	Satisfactory but deteriorates above 300°F.
Liquid Ammonia (Anhydrous)	Satisfactory except copper and its alloys.	Limited depending on conditions.	Limited depending on conditions.	Satisfactory.	Satisfactory.	Limited depending on conditions.
Liquid Chlorine, Bromine, etc.	Satisfactory if completely free from water. Otherwise attacks all metals.	Not recommended.	Not recommended.	Not recommended.	Not recommended.	Not recommended.
SOLVENTS Aliphatic (Gasoline, etc.)	Satisfactory.	Not recommended.	Not recommended.	Limited depending on conditions.	Satisfactory.	Limited depending on conditions.
Aromatic Types (Benzol, etc.) or chlorinated Types (Carbon tetrachloride, etc.)	Satisfactory.	Not recommended.	Not recommended.	Not recommended.	Limited depending on conditions.	Not recommended.
Acetone	Satisfactory.	Limited depending on conditions. Butyl preferred.	Limited depending on conditions.	Limited depending on conditions.	Not recommended.	Limited depending on conditions.
Alcohol	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Limited depending on conditions.
OILS	Satisfactory except high-sulfur; not oils attack copper, iron and alloys.	Not recommended.	Not recommended.	Limited depending on conditions and nature of oil.	Satisfactory except for some additive type oils.	Limited depending on conditions and nature of oil.

tion of packings, the mechanical properties of the packing itself usually are of greater importance. Packings rarely are fully exposed to the gas or liquid and, therefore, do not necessarily react in the same degree as indicated for the base material. For these reasons packings or gaskets should not be accepted or rejected for any application solely on the basis of chemical consideration.

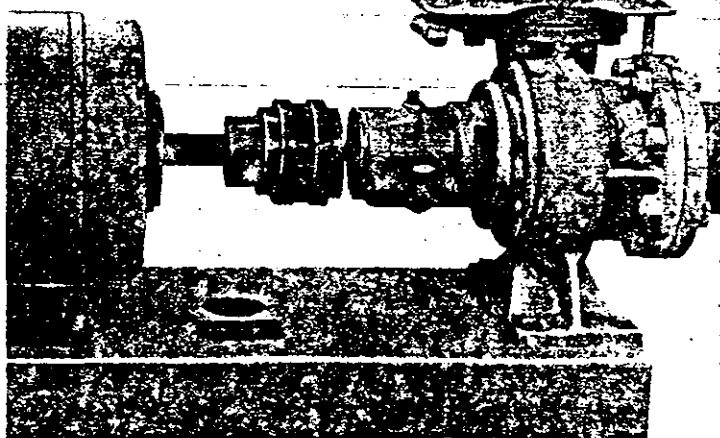
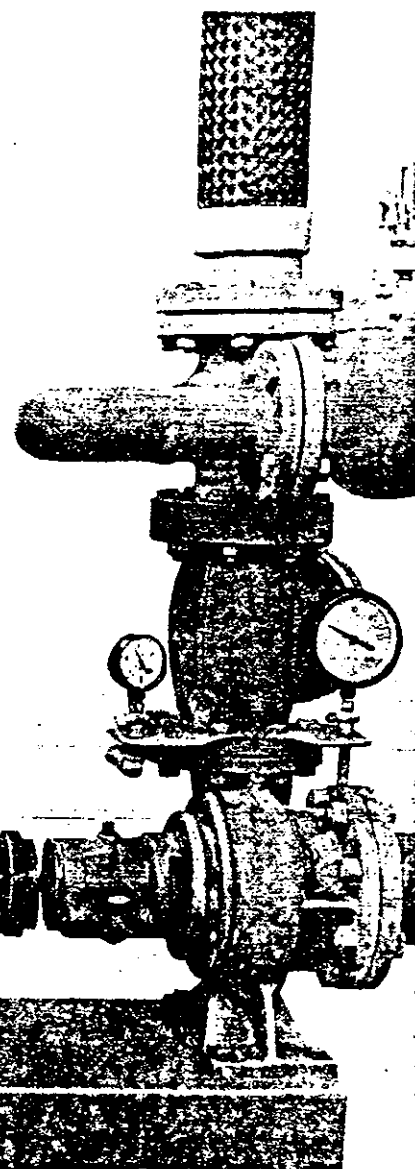
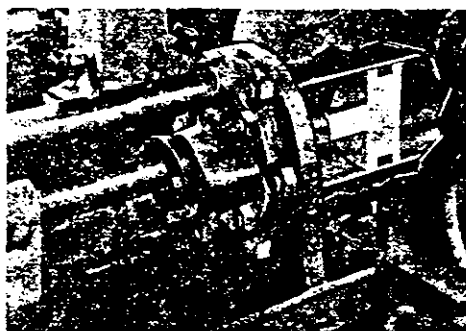
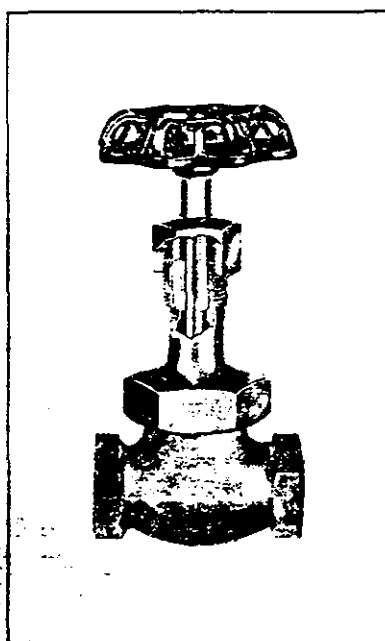


VITON [®] and FLUOREL [™]	PHENOLIC RESINS	TFE FLUOROCARBON	WHITE ASBESTOS	BLUE ASBESTOS	COTTON, FLAX VISCOSE RAYON	PAPER	LEATHER
Satisfactory but hardens above 500° F.	Satisfactory. Reinforcing fiber usually establishes limits.	Satisfactory but softens above 500° F.	Satisfactory.	Satisfactory.	Satisfactory but weakens above 200° F.	Satisfactory but weakens and embrittles above 200° F.	Satisfactory from cryogenics to -200° F.
Limited depending on conditions.	Limited depending on conditions.	Satisfactory but softens above 500° F.	Satisfactory.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory up to 225° F.	Satisfactory except for effect on reinforcing fibers.	Satisfactory.	Satisfactory.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory but hardens above 500° F. Not recommended in steam above 300° F.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.
Satisfactory but decomposes above 300° F.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 250° F.
Limited depending on conditions.	Satisfactory unless solutions are strong and above 200° F.	Satisfactory.	Satisfactory.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory if free from acid-soluble fillers.	Satisfactory. If used, reinforcing fibers should be acid resistant.	Satisfactory.	Satisfactory.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory if free from acid-soluble fillers.	Satisfactory. If used, reinforcing fibers should be acid resistant.	Satisfactory.	Not recommended.	Satisfactory.	Not recommended.	Not recommended.	Limited depending on conditions.
Satisfactory if free from acid-soluble fillers.	Satisfactory. If used, reinforcing fibers should be acid resistant.	Satisfactory.	Not recommended.	Satisfactory.	Not recommended.	Not recommended.	Limited depending on conditions.
Satisfactory if free from acid-soluble fillers.	Not recommended.	Satisfactory.	Not recommended.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Limited depending on conditions.	Limited depending on conditions.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.
Limited depending on conditions.	Not recommended.	Satisfactory.	Not recommended.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory but deteriorates above 300° F.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.
Not recommended.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Not recommended.
Not recommended.	Not recommended.	Satisfactory.	Satisfactory.	Satisfactory.	Not recommended.	Not recommended.	Not recommended.
Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but loses waxes, shrinks and hardens.
Not recommended.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but loses waxes, shrinks and hardens.
Not recommended.	Limited depending on conditions.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but loses waxes, shrinks and hardens.
Limited depending on conditions.	Limited depending on conditions.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but loses waxes, shrinks and hardens.
Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory.	Satisfactory but weakens above 200° F.	Satisfactory but weakens above 200° F.	Satisfactory but becomes porous and hardens above 200° F.

BULLETIN
AD-231-4



Soft Packing Products





GARLOCK WARRANTY

Garlock Inc. guarantees that any product of its manufacture, which upon examination is found by a Garlock representative to be defective either in workmanship or material whereby it is not suitable under proper usage and service for the purpose for which designed, will be replaced free of charge including transportation charges but not cost of installation. This shall be Garlock's maximum liability. The sale of Garlock products under any other warranty or guarantee, expressed or implied, is not authorized by Garlock.

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GARLOCK LATTICE BRAID® PACKINGS

diagonally braided for
greater strength and
longer life



Through many years of use in thousands of varied applications, LATTICE BRAID packing has proved to be superior to all other forms of braided packing.

The secret of its superiority over ordinary braided packing lies in its lattice-linked construction illustrated above.

LATTICE BRAID packing is braided inside as well as outside. Each strand passes diagonally through the body of the packing at an angle of approximately 45°. This makes a completely unified structure. Every braided strand contributes to the strength of the entire packing.

ADVANTAGES OF LATTICE BRAID PACKINGS

1. **LONGER LIFE**, which means fewer repackings and less downtime. This is because LATTICE BRAID packing has no single braid or outer cover to wear through. Lattice-linked braiding holds together when worn far beyond the limits of ordinary packings.
2. **UNUSUAL FLEXIBILITY**. Lattice-linked braiding makes each strand much more flexible than ordinary braiding. Thus there is less stress when it is formed into rings.
3. **QUICKER SEALING AND INFREQUENT GLAND ADJUSTMENT**. The strands are each lubricated to evenly distribute lubricant throughout the packing, and control proper porosity. Because of this and its greater flexibility, LATTICE BRAID packing is ready to operate at once . . . needs a minimum of further gland adjustment.

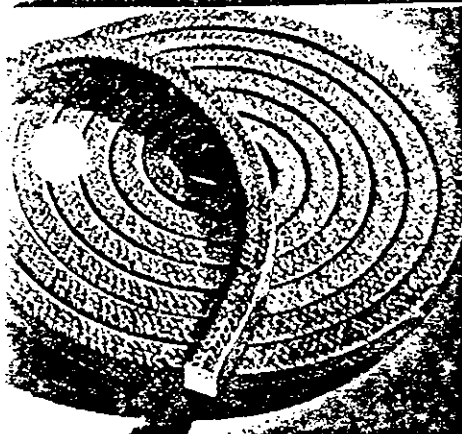
A LATTICE BRAID PACKING FOR EVERY SERVICE

The LATTICE BRAID packing line is complete for all services requiring braided packing. The variety of materials used is selected on the basis of continuing field research and over 75 years' experience in the packing business. The chart below tabulates the most common services. Contact your Garlock representative for recommendations covering any unusual applications.

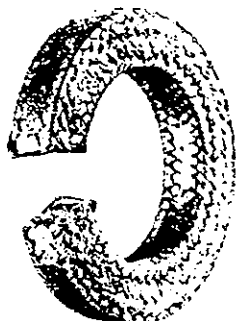
GENERAL RECOMMENDATIONS

Service	Centrifugal Rotary Shafts	Valve Stems and Expansion Joints	Reciprocating Rods, Plungers and Rams
Water, including neutral, alkaline or weak acid solutions—low to medium pressures	730 733 740 751 5862 5875	731 5862 5875	730 733 740 751 5862 5875
—high pressure	731 735 5862 5875	731 732 735 5862 5875	735 745 5862 5875
Liquids, paper pulp and other products for which noncontamination is a requisite	733 ungraphited 737 5875	733 ungraphited 737 5875	733 ungraphited 737 5875
Mineral acids and caustics	736 5880 5881 5888 5889	736 5880 5881 5888 5889	736 5880 5881 5888 5889
Gasoline	734 5875	734 5875	734 5875
Oils	5862 5875*	5862 5875*	5862 5875*
—cold	734	734	734
—hot (including tar, asphalt and creosote) up to 700°F.	735	735	735
Steam, air and inert gases (up to 500°F.) (up to 700°F.)	5875* 731 735	5875* 731 732 735	5875* 731 732 735
Oxygen	5780	5780	5780
Gaseous	5898	5898	5898
Liquid	5898	5898	5898

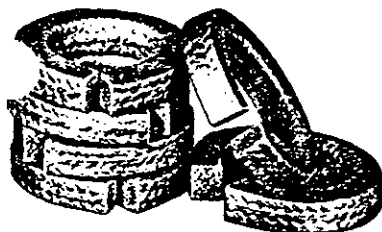
*Limited to 550° F.



731 COIL



732 RING



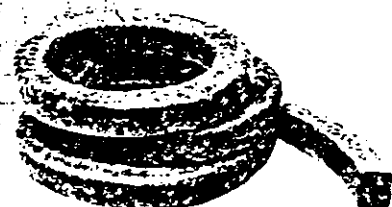
733 RINGS

GARLOCK ASBESTOS LATTICE BRAID PACKINGS

SERVICE	STYLE	APPLICATIONS
Water; neutral, alkaline or weak acid solutions... low to medium pressures	730	Centrifugal or rotary shafts. Reciprocating rods, plungers, rams
Water; neutral, alkaline or weak acid solutions... high pressure, steam, air and inert gases to 500°F.	731	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Water; neutral, alkaline or weak acid solutions... high pressure, steam, air and inert gases to 700°F.	732	Reciprocating rods, plungers and rams. Valve stems and expansion joints. Ideal for end rings of packing sets
Water; neutral, alkaline or weak acid solutions... low to medium pressures	733	Centrifugal or rotary shafts. Reciprocating rods, plungers, rams
	737	Same as 733 except no graphite finish. Mica finish also available
Gasoline and cold or hot oils up to 700°F.	734	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems and expansion joints
Water; neutral, alkaline or weak acid solutions... high pressure, steam, air and inert gases; oils, cold or hot (including tar, asphalt, creosote) to 700°F.	735	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems and expansion joints
Mineral acids and caustics	736	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems and expansion joints

NOTE: Cut and die-formed rings of Braided Packing are available from warehouse stocks across the United States and in Canada. Number of styles available are limited at present but will be enlarged in the near future.

GARLOCK FLAX AND COTTON LATTICE BRAID PACKINGS



740

SERVICE	STYLE	APPLICATIONS
Water; neutral, alkaline or weak acid solutions... low to medium pressures	740	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams
Water; neutral, alkaline or weak acid solutions... high pressures	745	Reciprocating rods, plungers and rams
Water; neutral, alkaline or weak acid solutions... low to medium pressures	751	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams

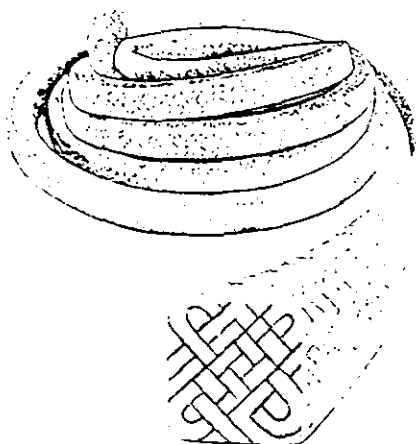
for service on centrifugal or rotary shafts, reciprocating rods, plungers, rams, valve stems, expansion joints

MATERIALS	PACKING SIZES	1/4"	3/16"	1/8"	3/32"	1/16"	3/64"	1/32"	3/128"	1/64"	3/256"	1/128"	3/512"	1"
Long fiber asbestos yarn, lubricated and graphited throughout. Relatively firm packing	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4 3/4	6 1/4	10	9	11	12	12 3/4	13 1/4	15	10 3/4	11 1/2	12	12 1/2
Long fiber asbestos yarn. Controlled lubrication and graphited throughout. Contains no excess lubrication	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4	5 1/2	8 1/2	8	9 1/2	10	11	11 1/2	13	9	9 3/4	10 1/4	10 3/4
Long fiber asbestos yarn with copper wire insertion and copper wire corners. Lubricated and graphited throughout. Also available dry	Coils per box	2	1	1	1	1	1	1	1	1	1	1	1	1
	Feet per box	50	41	39	36	30	24	22	19	17	15	15	15	15
	Pounds per box	3 1/2	4 1/2	7 3/4	9	9	9 1/4	10	10	8 3/4	9	10 3/4	12 3/4	14
Long fiber asbestos yarn, lubricated and graphited throughout. Available unlubricated and ungraphited; or with mica finish in place of graphite. Relatively soft packing	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4 1/2	6	9 1/4	8	10	11 1/4	12	12 1/2	14 1/2	10	11	11 1/4	11 3/4
Long fiber asbestos yarn, lubricated with gasoline-resistant compound and graphited throughout. Available dry, ungraphited or with mica finish	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4 1/2	6	9 3/4	8 3/4	10 1/4	11 3/4	13	13 3/4	15 1/4	10 1/2	12	11 3/4	13
Copper wire inserted long fiber asbestos yarn. Controlled lubrication and graphited throughout. Available dry, ungraphited or with mica finish	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	5	6	10	9 3/4	11 1/2	12 1/4	12 1/2	13	14 1/2	10 1/2	11 1/2	12	12 1/2
African blue asbestos yarn, lubricated and graphited throughout. Also available with mica finish	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4 3/4	5 3/4	10 1/2	9 1/4	11 1/4	12 3/4	13	13	15 3/4	11 1/4	11 1/4	11 1/2	11 1/2

for service on centrifugal or rotary shafts; reciprocating rods, plungers, rams

MATERIALS	PACKING SIZES	1/4"	3/16"	1/8"	3/32"	1/16"	3/64"	1/32"	3/128"	1/64"	3/256"	1/128"	3/512"	1"
Highest grade, long fiber flax roving. Lubricated. Not graphited. Available unlubricated or with surface coating of graphite. Relatively soft packing	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4	5 1/2	9 1/2	7 1/4	9	9 1/2	10	11 1/2	12	8 3/4	9	10	10
Highest grade, long fiber flax roving with waterproof hydraulic lubricant containing graphite. Also surface graphited	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4	5 1/2	9 1/2	7 3/4	8 1/2	10	11	12	12 1/2	8 1/2	9 3/4	10 3/4	10 1/2
High grade cotton yarn. Lubricated and graphited. Also available dry	Coils per box	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	4	4 3/4	8	7	8	9 1/4	9 1/2	10 1/2	11	8 1/2	8 1/2	9	9 1/4

GARLOCK LATTICE BRAID PACKINGS WITH TFE



5875 COIL

• FOR
ORDERING
INFORMATION
SEE
PAGE P-30

SERVICE	STYLE	APPLICATIONS
Oxygen: gaseous, liquid	5780	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Water: Neutral alkaline or weak acid solutions. For low, medium and high pressures; for cold and hot oils up to 700°F.	5861	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Water: Neutral alkaline or weak acid solutions. For low, medium and high pressures; for cold and hot oils up to 700°F.	5862	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Water: Neutral alkaline or weak acid solutions. For low, medium and high pressures. For all products which require noncontamination. Gasoline, cold and hot oils, up to 700°F. steam, air, and inert gases to 550°F.	5875	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Mineral acids and caustics	5880	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Mineral acids and caustics	5881	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Mineral acids and caustics	5888	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Mineral acids and caustics, high speed service	5889	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints
Oxygen: gaseous, liquid	5898	Centrifugal or rotary shafts. Reciprocating rods, plungers and rams. Valve stems, expansion joints

for service on centrifugal or rotary shafts, reciprocating rods, plungers, rams, valve stems, expansion joints

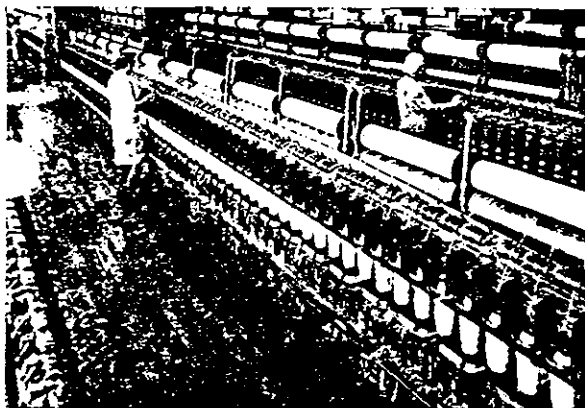
MATERIALS	PACKING SIZES	$\frac{1}{4}"$	$\frac{3}{16}"$	$\frac{1}{2}"$	$\frac{3}{4}"$	$1"$	$1\frac{1}{4}"$	$1\frac{1}{2}"$	$1\frac{3}{4}"$	$2"$	$2\frac{1}{2}"$	$3"$	$3\frac{1}{2}"$	$4"$
African blue asbestos yarn with TFE impregnation. Specially treated for oxygen service	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										7 $\frac{1}{4}$	9 $\frac{1}{2}$	10 $\frac{1}{2}$	12
Long-fiber asbestos yarn with TFE impregnation	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										8 $\frac{1}{4}$	8 $\frac{1}{4}$	8 $\frac{1}{4}$	9 $\frac{1}{2}$
Long-fiber asbestos yarn with TFE impregnation and a white lubricant for easier run-in	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										8 $\frac{1}{4}$	8 $\frac{1}{4}$	8 $\frac{1}{4}$	9 $\frac{1}{2}$
Long-fiber asbestos yarn with sintered TFE powder (U.S. Patent 3124032)	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										8 $\frac{1}{4}$	8 $\frac{1}{4}$	8 $\frac{1}{4}$	9 $\frac{1}{2}$
African blue asbestos yarn with TFE impregnation	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										7 $\frac{1}{4}$	9 $\frac{1}{2}$	10 $\frac{1}{2}$	12
African blue asbestos yarn with sintered TFE powder (U.S. Patent 3124032)	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										9 $\frac{1}{2}$	10 $\frac{1}{2}$	11 $\frac{1}{2}$	12 $\frac{1}{2}$
TFE fiber yarn with TFE impregnation—a very fine weave	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										11 $\frac{1}{4}$	12	14 $\frac{1}{4}$	15 $\frac{1}{4}$
Specially treated and impregnated TFE fiber yarn for improved break-in and high speed service	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										11 $\frac{1}{4}$	12	14 $\frac{1}{4}$	15 $\frac{1}{4}$
TFE fiber yarn with TFE impregnation—a very fine weave. Specially treated for oxygen service	Coils per box	Available in spools and reels. See size information below*									2	2	1	1
	Feet per box										30	28	26	24
	Pounds per box										11 $\frac{1}{4}$	12	14 $\frac{1}{4}$	15 $\frac{1}{4}$

*All LATTICE BRAID Styles in all sizes are available in 25 lb., 50 lb. and 100 lb. reels. Sizes $\frac{1}{4}"$, $\frac{3}{16}"$ and $\frac{1}{2}"$ are also available in 1 lb. and 5 lb. spools. Sizes $\frac{3}{4}"$ through $4"$ are also available in 5 lb. spools.

GARLOCK BRAIDED AND TWISTED PACKINGS



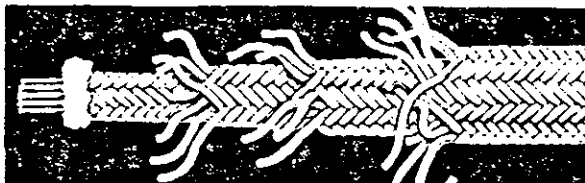
for service on reciprocating rods, rams and plungers;
centrifugal and rotary shafts, valve stems
and expansion joints



Spinning Asbestos Yarn



Regular Braid



Braid-Over-Braid



Twisted Packings

Garlock Braided and Twisted Packings have earned the reputation of being the finest in both performance and quality. Here are some of the reasons why: Garlock uses only the highest quality raw materials... long fiber, spinning grades of Canadian white asbestos... pure African blue asbestos... a variety of selected vegetable and synthetic fibers. And Garlock has the equipment and the experienced personnel to braid these high quality materials the best way for each type of service condition. In addition, each Garlock packing is carefully and properly lubricated with exactly the right type and amount of lubricant.

These Garlock packings are available in three styles:

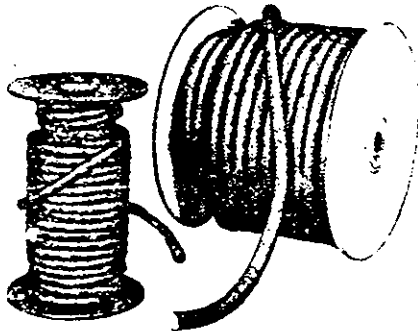
1. **REGULAR BRAID** (also called Square, Plaited or Flax Braid). Each strand passes over and under strands running in the opposite direction. Cross sections are square. These packings are especially suited for high speed rotary and reciprocating service.
2. **BRAID-OVER-BRAID** (also known as Multiple or Round Braid). This packing is built up to required size by braiding one or more covers around a center core of braided, twisted or homogeneous materials. Recommended for slow speed dynamic applications, valve stems and expansion joints. Especially good for valves where out-of-square cross sections are desired.
3. **TWISTED PACKINGS**. Yarns are twisted around each other to obtain desired size. One packing size can be used for various size stuffing boxes. Because strands are easily undone, you can twist the desired size by using only the number of strands you need. An especially good general utility or emergency type of packing where packing space is small.

RECOMMENDATION CHART

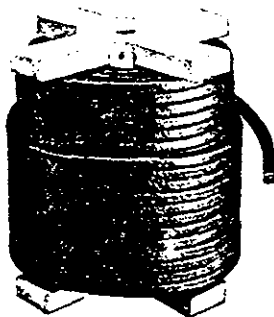
Because of the wide selection of packings covered in this section, it would be impractical to include every Garlock style in a single chart. Therefore we have listed only the "number one" choice (or choices) for use against a particular medium under normal operating conditions. Personal preference or unusual service conditions may indicate the use of other styles than those listed in this chart.

MEDIUM	Reciprocating Rods, Plungers and Rams;** Centrifugal and Rotary Shafts	Valve Stems, Expansion Joints and Slow Speed Dynamic Applications
GASES*		
Oxygen	5603-B	5603-B
Air	234, 256	127
Halogens (Chlorine, Bromine, etc.)	5298	5561
Other Hot Gases or Dry Steam	256, 5555	127, 5555
LIQUIDS		
Water and Dilute Water Solutions	26, 31, 66, 90, 234	233
Alkaline Solutions	234	233
ACIDS		
Weak Acid Solutions (including Acetic and other Organic Acids, Sulphurous Acids and Low Concentrations of Sulphuric and Hydrochloric)	234, 5555	233
Hydrochloric Acid	230, 5298	5414, 5561
Concentrated Sulphuric Acid	230, 5298	5414, 5561
Concentrated Acetic Acid (Glacial)	230, 5298	5414, 5561
Nitric Acid	230, 5298	5561
Aqua Ammonia	234	233
Liquid Ammonia (Anhydrous)	234	233
Liquid Chlorine, Bromine, etc.	5298	5561
SOLVENTS		
Aliphatic (Gasoline, etc.)	237	257
Aromatic Types (Benzol, etc. or Chlorinated Types; Carbon Tetrachloride, etc.)	237	257
Ketones	234	233
Alcohols	234	233
OILS		
Cold	237	257
Hot***		
SPECIAL		
Processing Plants, and Paper Mills (where contamination or discoloration must be avoided)	5298, 5555	5555, 5561, 5865
*In sealing gases, Garlock Plastic Packings are often preferred **Garlock Asbestos - Rubber and Duck - Rubber Packings are also used on reciprocating rods ***For hot oil service, Garlock Metal Foil Packings are often preferred. Contact your Garlock representative		

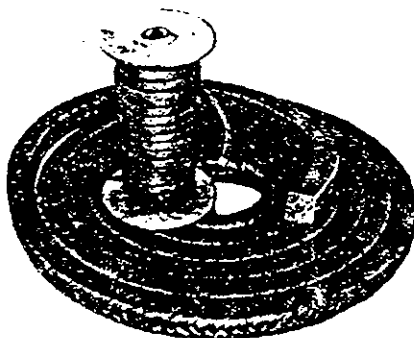
GARLOCK BRAIDED WHITE ASBESTOS PACKINGS



117-B AND 117-T



234



256

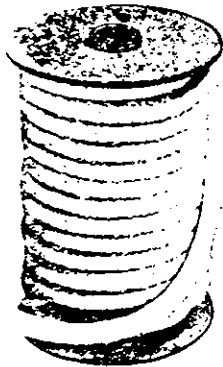
SERVICE	STYLE	APPLICATIONS
Hot and cold water, low and medium pressure steam and aqueous solutions	17-B	Hot, slow speed general service on rotary and reciprocating shafts and valve stems
Hot and cold water, low and medium pressure steam and aqueous solutions	117-B	Similar to 17-B but at lower temperatures
Hot and cold water, low and medium pressure steam and aqueous solutions	117-T	An excellent valve stem and emergency slow-speed dynamic packing
Hot and cold water, low and medium pressure steam and aqueous solutions	233	For piston and valve rods of pumps and engines; valve stems and slow speed rotary shafts
General: Hot and cold water, alcohol, ketones, low and medium pressure steam and aqueous solutions	234	General applications on rotating or reciprocating shafts
Solvents: Cold oils, gasoline, benzol, chlorinated solvents, esters and carbon bisulphide. Not recommended against alcohol or ketones	237	Reciprocating rods and plungers; centrifugal pumps and rotary shafts; valve stems where solvents are involved
Hot and cold water, low and medium pressure steam and aqueous solutions	243	For piston and valve rods of pumps and engines; stems of globe and angle valves; shafts of centrifugal pumps
General: Hot and cold water, alcohol, ketones, low and medium pressure steam and aqueous solutions	244	Same as 234, but for use at higher pressures
Steam, air, water or inert gases	256	Ideal for compressor, expansion joint or valve stem service

for service on reciprocating rods, rams and plungers; centrifugal and rotary shafts . . .
also slow speed dynamic applications, valve stems, expansion joints

BRAID AND MATERIALS	PACKING SIZES	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"
Braid-over-braid. Round cross-section. Long-fiber white asbestos yarn, treated with heat-resisting compound for steam service to 600°F. Graphited throughout	Feet per pound†	300	110	50	27	17	12	9	7	5	4 1/4	3 1/2	3	2 1/2	2 1/4	2		
Braid-over-braid. Round cross-section. Long-fiber white asbestos yarn with mineral-fat lubricant. Graphited throughout	Feet per pound†	300	110	50	27	17	12	9	7	5	4 1/4	3 1/2	3	2 1/2	2 1/4	2		
Twisted. Round cross-section. Long-fiber white asbestos yarn with mineral-fat lubricant. Graphited throughout	Feet per pound†	300	110	50	27	17	12	9	7	5	4 1/4	3 1/2	3	2 1/2	2 1/4	2		
Braid-over-braid. Square cross-section. Long-fiber white asbestos yarn, impregnated with mineral-fat lubricant. Graphited throughout. Available with wire, if specified	Coils per box		x	x	5	5	4	3	3	3	3	3	3	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	26	24	22		2
	Pounds per box		x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/4	16	11 1/2	12 1/2	13		1
Regular braid. Square cross-section. White asbestos yarn, impregnated with mineral fat lubricant, graphited throughout. Available unlubricated but surface graphited, when specified	Coils per box		x	x	5	5	4	3	3	3	3	3	3	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	26	24	22		2
	Pounds per box		x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/4	16	11 1/2	12 1/2	13		1
Regular braid. Square cross-section. Long-fiber white asbestos yarn, lubricated with soap and glycerol compound and graphited throughout	Coils per box		x	x	5	5	4	3	3	3	3	3	3	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	26	24	22		2
	Pounds per box		x	x	5 1/2	7 1/4	12 1/4	10 1/4	12 1/2	14 1/4	15	18	17 3/4	12 3/4	14 1/4	14 1/2		1
Braid-over-braid. Round cross-section. Long-fiber white asbestos yarn. Mineral-fat lubricant. Graphited throughout. Soft and pliable	Coils per box		x	x	5	5	4	3	3	3	3	3	3	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	26	24	22		
	Pounds per box		x	x	4	5 1/4	8 3/4	7 1/4	8 3/4	10	10 1/2	11 1/4	12 1/2	9 1/4	9 3/4	10 1/4		
Regular braid. Square cross-section. Same materials as 234 except it has copper wire insertion	Coils per box		x	x	5	5	4	3	3	3	3	3	1	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	28	24	22		
	Pounds per box		x	x	5 1/4	7 1/4	12 1/4	10 1/4	12 1/2	14 1/4	15	18	17 1/4	12 3/4	14 1/4	14 1/2		
Regular braid. Square cross-section. Long fiber white asbestos yarn, copper wire inserted. Impregnated throughout with a petroleum lubricant by controlled process which eliminates excessive lubrication. Graphite coated surface. Available without wire, when specified	Coils per box		x	x	5	5	4	3	3	3	3	3	3	1	1	1		
	Feet per box		x	x	120	100	116	72	66	60	51	45	42	26	24	22		
	Pounds per box		x	x	6 1/4	8	13 1/2	11 1/4	13 1/2	15 3/4	16 1/4	17 1/4	18 1/2	14 1/4	15 1/4	16		

CONTINUED ON NEXT PAGE

BRAIDED WHITE ASBESTOS PACKINGS—Continued



5603-B

SERVICE	STYLE	APPLICATIONS
Solvents: Cold oils, gasoline, benzol, chlorinated solvents, esters and carbon bisulphide. Not recommended against alcohol or ketones	257	Slow-speed dynamic applications; valve stems and expansion joints
General: Hot and cold water, alcohol, ketones, low and medium pressure steam and aqueous solutions	644	Particularly suited for compressor and turbine service. Capable of withstanding high gland loads without collapsing
Cold water	983	POLARPAK* braided packing. Ideal for maintenance, especially suited for high-speed rotary and reciprocating service
Hot water and steam to 1250°F. (if stuffing box does not exceed 750°F.)	1700	Hot, dry installations—both dynamic; valve stems and static gasketing, furnace doors
Stock and liquor and white water in the paper industry	5482	PAPERPAK* braided packing. Made specifically for the paper industry. Especially suited for pumps and high-speed rotary and reciprocating applications... wherever contamination cannot be tolerated
Oxygen	5603-B	Slow-speed dynamic applications on oxygen equipment, valve stems, expansion joints

*Garlock Trademark

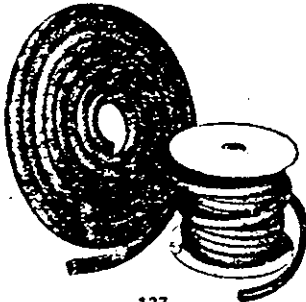
SOOT BLOWER PACKING

We offer two sizes of packing sets to fit Type IK soot blowers. Other sizes are available on special order. Sets consist of conical shaped packing rings of Style 127 braided white asbestos with plastallic cores, complete with top and bottom adapters.

Available in two standard sizes:

2 3/8" x 3 1/8" x 3 1/8" deep.

2 1/2" x 3 1/8" x 3 1/8" deep.



127

GARLOCK BRAIDED WHITE ASBESTOS PACKINGS WITH PLASTALLIC CORES

SERVICE	STYLE	APPLICATIONS
Hot water and steam valve stem service to 1200°F line*... pressures to 4000 psi *Average temperature of packing will be several hundred degrees less than line temperature	127	Ideal for valve stems in high-pressure, high-temperature power plant and oil refinery applications. Also unexcelled expansion joint packing for temperatures up to 750°F or 800°F.
Similar to 127. Recommended where service conditions are not severe enough for 127 or where a Monel wire insertion is desired	5855 5865	Similar to 127 but made with Monel wire inserted asbestos yarn jacket. Also available without wire when specified. Same as 5855 except made with mica instead of graphite to eliminate contamination and discoloration
Similar to 127	5901	Specially developed to meet Government Spec. MIL P-17303, Class II, Type E, symbol 1111

for service on reciprocating rods, rams and plungers; centrifugal and rotary shafts . . .
also slow speed dynamic applications, valve stems, expansion joints

BRAID AND MATERIALS	PACKING SIZES	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"
Braid-over-braid. Square cross-section. Long-fiber white asbestos yarn with soap-fat lubricant. Graphited throughout	Feet per pound*	107	47	27	17 1/2	12	9 3/4	6 1/2	5	4 1/4	3 1/2	3	2 1/2	2 1/4	2	1 1/2		
	Coils per box	x	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Regular braid. Square cross-section. Long-fiber white asbestos yarn and strands of soft lead twisted together and braided. Thoroughly mineral-fat lubricated. Graphite coated surface	Feet per box	x	x	50	45	39	36	30	24	22	19	17	15	15	15	15	15	15
	Pounds per box	x	x	5 1/2	7 1/4	9 1/2	12	13	13 1/4	15	15 3/4	16 3/4	17 1/4	20	23	26		
Regular braid. Square cross-section. All-white long-fiber asbestos. Thoroughly compounded with stable all-white lubricant. Surface treated with all-white TFE fluorocarbon resin. Soft and pliable, with low-friction characteristics	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/2	16	11 1/2	12 1/2	13	13 1/2		
Braid-over-braid. Round cross-section (also available square or out-of-square). Long-fiber white asbestos yarn. No internal lubricant, but graphite coated on surface. Available with wire, when specified	Feet per pound†	500	195	90	50	30	20	16	13	10	8	6 1/2	5 1/2	4 3/4	4	3 1/2	3	
	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
Regular braid. Square cross-section. Same basic materials as 983, adapted to meet the special requirements of the paper industry	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/2	16	11 1/2	12 1/2	13	13 1/2		
Braid-over-braid. Square cross-section. 100% pure white asbestos yarn. Neither lubricated nor graphited. Use as is or treat to suit your needs. A relatively soft packing	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	3 1/2	4 1/2	7 1/4	6 1/2	7 3/4	9	9 1/2	10	11 1/4	8	8 3/4	9 1/4	9 1/2		

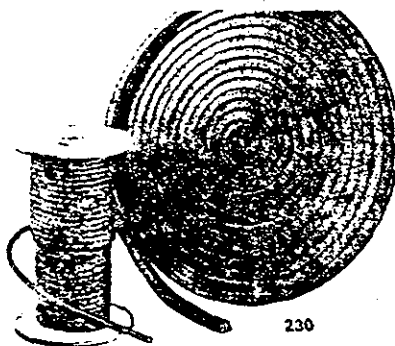
All Styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only *Sizes above 1" available in 1/8" increments
*Available on 1 lb. or 5 lb. spools or reels only †1/4"-3/8" - 1 lb. spools; 1/4"-3/4" - 5 lb. spools; 1/4"-1" - 25, 50, 100 lb. reels

for service on valve stems, expansion joints and slow-speed dynamic applications

BRAID AND MATERIALS	PACKING SIZES	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"
Braided jacket. Square cross-section. Homogeneous core of white asbestos. Braided jacket of 90% Grade AA asbestos. Inconel® wire inserted. Surface treated with elastomeric material and graphite. Corrosion inhibitor. Also available without wire	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds/box (wire)	x	x	6 1/4	8	13 1/2	11 1/2	13 1/2	15 3/4	16 1/2	17 1/2	18 1/2	14 1/4	15 1/4	16	16 1/2		
	Pounds/box (no wire)	x	x	5 1/2	7 1/4	12 1/4	10 1/4	12 1/2	14 1/4	15	16	17 3/4	12 3/4	14 1/4	14 1/2	15		
Similar to 127 but made with Monel® wire inserted asbestos yarn jacket. Also available without wire when specified	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds/box (wire)	x	x	6 1/4	8	13 1/2	11 1/2	13 1/2	15 3/4	16 1/2	17 1/2	18 1/2	14 1/4	15 1/4	16	16 1/2		
	Pounds/box (no wire)	x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/2	16	11 1/2	12 1/2	13	13 1/2		
SBR bonded asbestos-graphite core with Grade AA, 90% asbestos, Inconel® wire inserted yarn jacket. Corrosion inhibitor. If compliance with Government specification not necessary, use Garlock 127	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds/box (wire)	x	x	6 1/4	8	13 1/2	11 1/2	13 1/2	15 3/4	16 1/2	17 1/2	18 1/2	14 1/4	15 1/4	16	16 1/2		
	Pounds/box (no wire)	x	x	5	6 1/2	11	9 1/4	11	13 1/4	13 1/2	14 1/2	16	11 1/2	12 1/2	13	13 1/2		

*International Nickel Company Trademark All styles available on 25, 50 and 100 lb. reels
x Available in 1 lb. and 5 lb. spools only *Sizes above 1" available in 1/8" increments

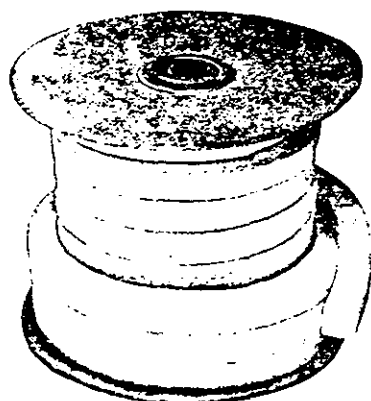
GARLOCK BRAIDED BLUE ASBESTOS PACKINGS



230

SERVICE	STYLE	APPLICATIONS
Acids and corrosive chemicals; specifically recommended for nitric acid	230	Reciprocating rods, rams and plungers; centrifugal and rotary shafts
Strong mineral acids, but NOT recommended for nitric acid service	5414	Slow speed dynamic applications, valve stems and expansion joints

GARLOCK BRAIDED ASBESTOS PACKINGS WITH TFE TREATMENT



5555

SERVICE	STYLE	APPLICATIONS
Corrosive mineral acids and caustics including nitric acid. Not recommended against molten alkali metals, chlorine trifluoride or gaseous fluorine at elevated temperatures and pressures	5298	Suitable for general service on reciprocating rods, rams, and plungers; rotary and centrifugal shafts
Solvents, mild acids, mild alkalis	5555	Very effective valve stem packing where out-of-square sizes are required. Recommended for paper mills and process plants, where noncontamination is essential
Extremely corrosive acids and caustics including nitric acid. Not recommended against molten alkali metals or hot complex halogen compounds	5561	For service on slow speed dynamic applications, valve stems and expansion joints

GARLOCK BRAIDED FLAX PACKINGS



26

SERVICE	STYLE	APPLICATIONS
Cold water and dilute aqueous solutions	26	Low and medium pressure use on outside-packed plungers, reciprocating and centrifugal pumps, accumulators and other hydraulic equipment where cold water is encountered
Cold water and dilute aqueous solutions	31	Same as Style 26, except for somewhat less severe service

for service on reciprocating rods, rams and plungers; centrifugal and rotating shafts

BRAID AND MATERIALS	PACKING SIZES	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"	2"
Regular braid. Square cross-section. Blue asbestos, thoroughly treated with mineral-fat lubricant. Externally graphited	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	5 1/2	7 1/4	12 1/4	10 1/4	12 1/2	14 1/4	15	16	17 3/4	12 3/4	14 1/4	14 1/2	15		
Braid-over-braid. Square cross-section. Blue asbestos, thoroughly treated with blended mineral-animal fat lubricant. Externally graphited	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	5 1/2	7 1/4	12 1/4	10 1/4	12 1/2	14 1/4	15	16	17 3/4	12 3/4	14 1/4	14 1/2	15		

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only † Sizes above 1" thru 1 1/2" in 1/8" increments (Style 230 only)

for service on reciprocating rods, rams and plungers; centrifugal and rotary shafts; valve stems

BRAID AND MATERIALS	PACKING SIZES	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"	2"
Regular braid. Square cross-section. Blue African asbestos, thoroughly treated with TFE. No graphite. A relatively firm packing	Coils per box	x	x	x	x	x						2	2	1	1	1	1	1
	Feet per box						xx	xx	xx	xx	30	28	26	24	22	20		
	Pounds per box										9 1/4	11 1/4	11 1/2	12 1/2	13	13 1/2		
Braided jacket. Square cross-section. A plastic packing with powdered TFE-white asbestos core and single braided asbestos yarn jacket. Impregnated with TFE suspensoid. No graphite	Coils per box	x	x	x	x	x					2	2	1	1	1	1	1	1
	Feet per box						xx	xx	xx	xx	30	28	26	24	22	20		
	Pounds per box										8 1/2	9 1/4	10 1/4	11	11 1/2	12		
Braid-over-braid. Square cross-section. Blue African asbestos, thoroughly treated with TFE. No graphite	Coils per box	x	x	x	x	x					2	2	1	1	1	1	1	1
	Feet per box						xx	xx	xx	xx	30	28	26	24	22	20		
	Pounds per box										11	12 1/4	12 3/4	14 1/4	14 1/2	15		

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only xx Available in 5 lb. spools only † Sizes above 1" in 1/8" increments

for service on reciprocating rods, rams and plunges; centrifugal and rotary shafts

BRAID AND MATERIALS	PACKING SIZES	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	1 7/8"	2"
Regular braid. Square cross-section. High grade, No. 1 longest-fiber flax roving, free from tow and short fibers. Treated with blended marine wax and paraffin lubricant. No graphite. A medium hard packing	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	3 1/2	4 1/2	7 3/4	6 1/2	7 1/4	9	9 1/2	10	11 1/4	8	8 3/4	9 1/4	9 1/2		
Same as Style 26, but with No. 2 long-fiber flax roving	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20		
	Pounds per box	x	x	4	5 1/4	8 3/4	7 1/4	8 1/4	10	10 1/2	11 1/4	12 1/4	9 1/4	9 3/4	10 1/4	10 3/4		

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only † Sizes above 1" in 1/8" increments

TIPS ON BRAIDED PACKING INSTALLATION

After you have selected the braided packing that satisfies your particular need there is one important factor yet to be considered... proper installation.

Overtightening of glands, using undersized or oversized cross sections and seating rings improperly are just a few of the possible causes that can cripple a braided packing's performance.

In order to ensure maximum efficiency and length of service from your Garlock braided packings, the following installation tips should be followed carefully:

1. Always store packings in a clean, dry place. Dirt, and abrasive materials should never come in contact with packing before installation.
2. Cut packing on mandrel or shaft by winding packing needed for stuffing box around rod and cut through each turn while coiled. Packings should be cut to fit exactly.
3. Use *all* new packings—never install used rings.
4. Prior to installing new packing, clean stuffing box thoroughly.
5. Install one ring at a time... tamping each one firmly into place.
6. When installing rings, stagger joints at 90° or 120° intervals.
7. Nuts on gland should be tightened finger tight then released 1/4 turn before starting up.
8. Make sure gland is pulled up evenly. If pulled too tight, packing will overheat and score rod on shaft. If too loose, packing will fail. Wait 15 minutes between adjustments.
9. Light drip (5-10 cc per minute) should be allowed. This acts as lubrication for packing.
10. Whenever possible, use a lantern ring for auxiliary lubrication... particularly for slurries, gases and mobile liquids. When installing lantern ring every precaution should be taken to line up lantern ring with opening in stuffing box wall. This registry should be maintained at all times.



35



46

GARLOCK BRAIDED FLAX PACKINGS—Continued

SERVICE	STYLE	APPLICATIONS
For paper mills and process plants	50	Low and medium pressure cold water, high pressure cold oil on reciprocating and centrifugal pumps, rams and plungers where contamination or discoloration can not be tolerated
Water-proof hydraulic flax packings for heavy-duty, high pressure service	90	Same as Style 26, except for heavy duty service where the presence of graphite will be beneficial
Water-proof hydraulic flax packings for heavy-duty, high pressure service	131	Same as Style 90, but in milder service

GARLOCK BRAIDED JUTE PACKINGS

SERVICE	STYLE	APPLICATIONS
Cold water and dilute aqueous solutions	35	Low and medium pressure use on rods and outside-packed plungers of reciprocating pumps, rotary shafts and valve stems

GARLOCK BRAIDED COTTON PACKINGS

SERVICE	STYLE	APPLICATIONS
Hot or cold water, alcohol or dilute aqueous solutions	66	Low and medium pressure cold water on plungers, rams, reciprocating and centrifugal pump rods and shafts

for service on reciprocating rods, rams and plungers; centrifugal and rotary shafts

BRAID AND MATERIALS	PACKING SIZES	1/2"	3/16"	1/4"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1"
Regular braid. Square cross-section. Longest-fiber flax roving, free from tow and short fibers. Impregnated with marine and petroleum wax lubricant. No graphite. Clean, non-toxic.	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	x	x	4	5 1/4	8 1/4	7 1/4	8 1/4	10	10 1/2	11 1/4	12 1/2	9 1/4	9 1/4	10 1/4	10 3/4
Regular braid. Square cross-section. No. 1 longest-fiber flax roving, free from tow and short fibers. Impregnated with modified marine and petroleum waxes and graphite lubricant. A relatively firm packing. For less severe service, specify Style 90-S (soft) or Style 90-VS (very soft).	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	x	x	4	5 1/4	8 1/4	7 1/4	8 1/4	10	10 1/2	11 1/4	12 1/2	9 1/4	9 1/4	10 1/4	10 3/4
Same as Style 90, but with No. 2 longest-fiber flax roving	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	x	x	4	5 1/4	8 1/4	7 1/4	8 1/4	10	10 1/2	11 1/4	12 1/2	9 1/4	9 1/4	10 1/4	10 3/4

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only *Sizes above 1" in 1/8" increments

for service on reciprocating rods and plungers; rotating shafts and valve stems

BRAID AND MATERIALS	PACKING SIZES	1/2"	3/16"	1/4"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1"
Regular braid. Square cross-section. High grade jute fiber, free from short fibers. Treated with mineral oil, paraffin and marine-fat lubricant. Ungraphited. Medium density. Also available dry.	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	x	x	3 1/2	4 1/4	7 1/4	6 1/2	7 1/4	9	9 1/2	10	11 1/4	8	8 1/4	9 1/4	9 1/2

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only *Sizes from 1 1/8" thru 1 1/2" in 1/8" increments

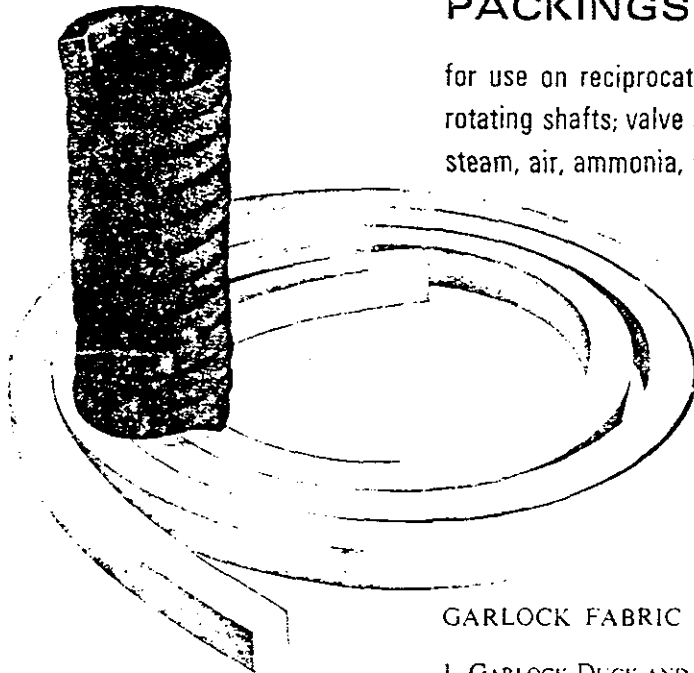
for service on reciprocating rods, rams and plungers; centrifugal and rotary shafts

BRAID AND MATERIALS	PACKING SIZES	1/2"	3/16"	1/4"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1/2"	3/16"	1"
High-grade cotton yarn, braided regular in square cross-section. Impregnated with mineral-fat lubricant and externally graphited. The softness of this style keeps shaft wear to a minimum.	Coils per box	x	x	5	5	4	3	3	3	3	3	3	1	1	1	1
	Feet per box	x	x	120	100	116	72	66	60	51	45	42	26	24	22	20
	Pounds per box	x	x	4	5 1/4	8 1/4	7 1/4	8 1/4	10	10 1/2	11 1/4	12 1/2	9 1/4	9 1/4	10 1/4	10 3/4

All styles available on 25, 50 and 100 lb. reels x Available in 1 lb. and 5 lb. spools only *Sizes from 1 1/8" thru 1 1/2" in 1/8" increments

GARLOCK FABRIC AND RUBBER PACKINGS

for use on reciprocating rods, rams and plungers; centrifugal and rotating shafts; valve stems and expansion joints handling water, steam, air, ammonia, oils, chlorine and gases



GARLOCK FABRIC AND RUBBER PACKINGS INCLUDE:

1. GARLOCK DUCK AND RUBBER PACKING made from highest quality, various weight cotton duck fabrics with natural, neoprene or SBR rubber binders. This packing does a superior job in hot water service, because its built-in resiliency compensates for the swelling tendency common with ordinary hot water packing. It withstands temperatures to 250°F. Garlock Duck and Rubber Packing is available in three types:

LAMINATED CONSTRUCTION, where duck and rubber are press-laminated into slab form, then fabricated into coil or spiral form. All styles are laminated flat, except Garlock 711, which is laminated diagonally.

ROLLED CONSTRUCTION, medium weight rubber-coated cotton duck with a hollow center. Cross section is square. Allows expansion and contraction of packing without binding.

ROLLED CONSTRUCTION, medium weight rubber-coated cotton duck rolled around a round rubber core. Round cross section. High resiliency permits flexing without binding or seizing.

2. GARLOCK ASBESTOS AND RUBBER PACKING made from asbestos cloth woven in our own textile mill ... impregnated and coated with Garlock compounded SBR rubber, insuring quality controlled products. Garlock Asbestos and Rubber Packing is available in two general types:

LAMINATED CONSTRUCTION, where asbestos and rubber are laminated into slab form, then made into coils, spirals or rings. All styles laminated flat.

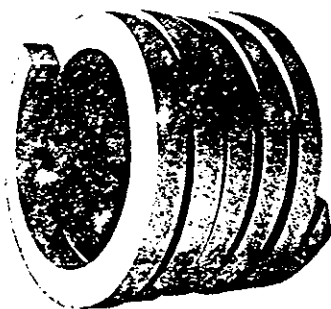
ROLLED CONSTRUCTION, made of rolled asbestos cloth and rubber or metal in three styles: with rubber core, with lead wedge, or with accordion-folded asbestos cloth and rubber strip.

GENERAL RECOMMENDATION CHART

This chart covers most common applications for Garlock Duck and Rubber Packings and Garlock Asbestos and Rubber Packings. The styles we consider best for various applications are listed. Some users may prefer other Garlock Fabric and Rubber styles, or braided packings, or plastallic packings, all covered in this catalog.

Fluid Being Handled	TYPE OF EQUIPMENT						
	Piston and Valve Rods	Steam Hammers	Slip-Type Expansion Joints	Compressor Rods	Valve Stems	Reciprocating Pump Rods	End Rings
Water (Hot or Cold)	333 711				333	333 711	262
Low-Pressure Steam (Up to 250°F.)	333 150	150 377	150	150 377	333 150	333 366	262
Medium-Pressure Steam (250°F. to 550°F.)	150 377	150 377	150	150 377	150	150 377	150
Air and Gases (Up to 600°F.)	150		150	150 388	150		150
Ammonia	711 377			334 377	334	711 377	
Chlorine					7130		
Aliphatic Oils (Up to 250°F.)	7279		7279	7279	7279	7279	7392

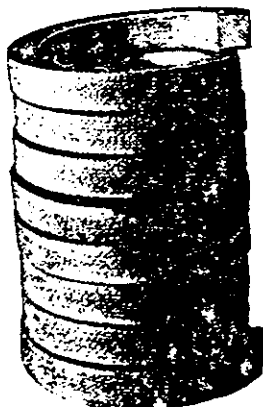
GARLOCK DUCK AND RUBBER PACKINGS



333



38



711

SERVICE	STYLE	APPLICATIONS
Hot or cold water and low-pressure steam	33*	Especially recommended for heavy-duty hydraulic service, or as end rings
Cold water	38*	Pistons or plungers of inside-packed pumps, or as end rings to prevent softer packing extrusion
Hot or cold water	262**	Same as Style 38, but also good for hot water service
Hot or cold water, low-pressure steam	333***	Piston and valve rods of steam engines and reciprocating pumps; valve stems; rotating shafts at slow speeds. (Also suitable for use against ammonia... order style 334.)
Hot or cold water, low-pressure steam	366	Steam hammer pistons; plungers of outside-packed pumps and elevators; piston rods of steam engines. Hollow center allows for expansion... compensates for rod weave or lateral motion
Hot or cold water, low-pressure steam and hot mixtures of anhydrous ammonia	711	Piston and valve rods of steam engines and reciprocating pumps; ammonia rods; and rotating shafts at slow speeds. Diagonal construction permits operation with light gland pressure. Ideal where rod weave or lateral motion exists
Hot or cold water	7636†	Plungers of outside-packed pumps, elevators, accumulators and other heavy hydraulic services. As end rings in combination with braided packing rings
Ammonia	334‡	Suitable for ammonia service

for service on pistons or plungers of inside-packed and outside-packed pumps; heavy hydraulic use; end rings

CONSTRUCTION AND MATERIALS	PACKING SIZES	1/4"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"		
Laminate consisting of plies of strong, medium-weight cotton duck, treated with special Garlock SBR rubber compound. Either regular cure for most applications or rockhard cure for some hot water and high-pressure services	COILS per box			4	3	3	2	2	2	2		2	1	1	
	Feet per box			60	45	45	30	30	30	30		30	15	15	
	Pounds per box			1 1/4	2 1/4	3	2 1/4	3 1/2	4 1/2	5 1/2		8	5 1/4	7 1/4	
Laminate of medium-weight cotton duck plies, treated with a Garlock SBR rubber compound. Dry top and bottom covers. No graphite or lubrication	COILS per box			4	3	3	2	2		2		2	1	1	
	Feet per box			60	45	45	30	30		30		30	15	15	
	Pounds per box			1 1/4	2	2 1/4	2 1/4	3 1/4		5 1/4		7 1/4	5 1/4	6 3/4	
A laminated special white hydraulic packing of fine cotton fabric plies, treated with natural rubber compound. No graphite, no lubricant. Regular cure for most applications. Rockhard for some high-pressure not water services	COILS per box			4	3	3	2	2	2	2	2	2	1	1	
	Feet per box			60	45	45	30	30	30	30	30	15	15	15	
	Pounds per box			2 1/4	3	4 1/4	4	5 1/4	6 1/4	8 1/4	9 1/4	11 1/4	6 1/4	8	9 1/4
A laminate consisting of plies of closely woven heavyweight cotton duck, treated with special Garlock SBR rubber compound. Graphited and mineral oil lubricated. Has rubber top and bottom covers	COILS per box			6	4	4	4	4	3	3		2	1	1	
	Feet per box			75	50	50	50	50	37 1/2	37 1/2		25	12 1/2	12 1/2	
	Pounds per box			3 1/4	3	4	5 1/2	7		8 1/4		8	5 1/2	7 1/4	
	SPIRALS per box	4	3	2	1	1	1	1		1		1	1	1	
	Feet per box	50	37 1/2	25	12 1/2	12 1/2	12 1/2	12 1/2		12 1/2		12 1/2	12 1/2	12 1/2	
	Pounds per box	7 1/4	1	1 1/4	2 1/4	1	1 3/4	1 3/4		2 3/4		4	5 1/2	7 1/4	
Rolled construction, with hollow center. Square cross-section. Special medium-weight cotton duck, frictioned with Garlock SBR rubber compound (except outside surfaces). Modified glycerol lubricant. Externally graphited	COILS per box					4	4	4	3	3		2	1	1	
	Feet per box					50	50	50	37 1/2	37 1/2		25	12 1/2	12 1/2	
	Pounds per box					4	5 1/2	7	6 1/4	8 1/4		8	5 1/2	7 1/4	
	SPIRALS per box			2	1	1	1	1		1		1	1	1	
	Feet per box			25	12 1/2	12 1/2	12 1/2	12 1/2		12 1/2		12 1/2	12 1/2	12 1/2	
	Pounds per box			1 1/4	2 1/4	1	1 3/4	1 3/4		2 3/4		4	5 1/2	7 1/4	
Heavyweight cotton duck plies, treated with special Garlock SBR rubber compound. Laminated diagonally. Top and bottom covers of rubber and fabric. Graphited and mineral oil lubricated	COILS per box			6	4	4	4	4	3	3		2	1	1	
	Feet per box			75	50	50	50	50	37 1/2	37 1/2		25	12 1/2	12 1/2	
	Pounds per box			2 1/4	3	4	5 1/2	7		8 1/4		8	5 1/2	7 1/4	
	SPIRALS per box			2	1	1	1	1	1	1	1	1	1	1	
	Feet per box			25	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	
	Pounds per box			1 1/4	2 1/4	1	1 3/4	1 3/4	2 1/4	2 3/4	3 3/4	4	4 3/4	5 1/2	7 1/4
Laminated heavyweight cotton duck plies, treated with Garlock black natural rubber compound. Untreated top and bottom fabric covers. No graphite. No lubrication	SPIRALS per box							2		2		2	1	1	
	Feet per box							50		50		50	25	25	
	Pounds per box							5 1/4		9		13 1/2	9	12	

Same as 333 but in ring form

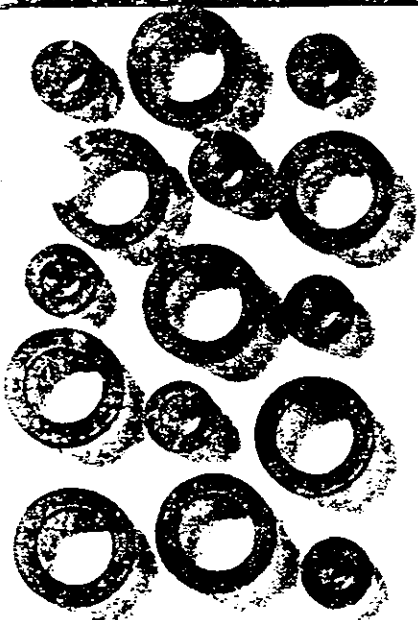
*1 1/4" also available
**1 1/4" and 1 1/4" also available
***1 1/4" also available in spiral only

*1 1/4", 1 1/4", 1 1/4" and 1 1/2" also available
‡Available in ring form

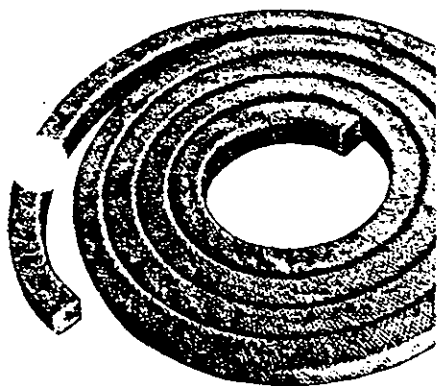
Same as 333 but in ring form

*1 1/4" also available
 **1 1/4" and 1 3/4" also available
 ***1 1/4" also available in spiral only

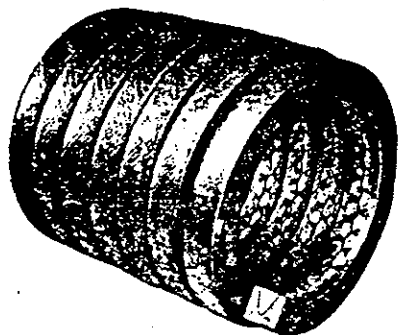
†1 1/4", 1 1/2", 1 3/4" and 1 1/2" also available
 ‡Available in ring form



7130



150



377

FOR ORDERING INFORMATION,
SEE PAGE P-30

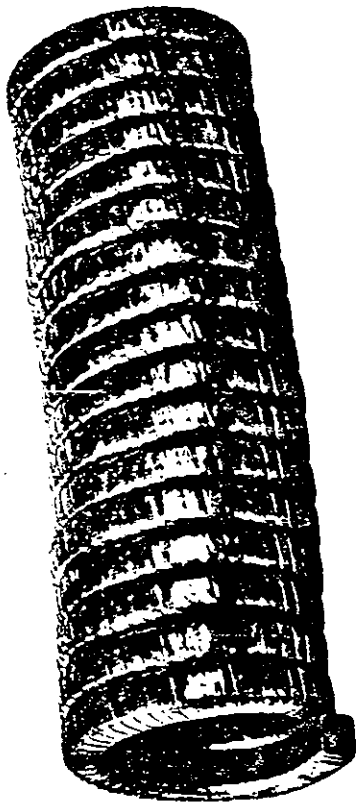
GARLOCK ASBESTOS AND RUBBER PACKINGS

SERVICE	STYLE	APPLICATIONS
Steam at pressures to 300 psi, temperatures to 600°F.	144	Piston rods of steam engines, pumps, compressors, hammers, logging equipment; expansion joints. Particularly good against wet steam.
Steam at pressures to 300 psi, temperatures to 600°F.	150*	Same as Style 144. Also ideal for use where vibration or lateral weave exists.
Steam, air, ammonia or gas at temperatures to 600°F.	377	Especially good for vertical rods. Piston and valve rods on steam engines, pumps, compressors, hammers, logging machinery; ammonia compressors; reciprocating rods and shafts of enclosed crankcase types.
Hot and cold water, steam and gases to 600°F.	7130	Particularly recommended for use on valves on chlorine containers. <i>Approved by the Chlorine Institute</i>

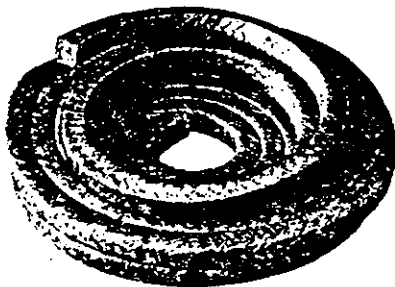
for service on piston and valve rods; compressor and pump rods; valve stems; expansion joints

CONSTRUCTION AND MATERIALS	PACKING SIZES	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{7}{16}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{4}$ "	$1\frac{3}{8}$ "	$1\frac{1}{2}$ "
		$\frac{1}{8}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{7}{16}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{4}$ "	$1\frac{3}{8}$ "	$1\frac{1}{2}$ "
Rolled construction with rubber core. Approximately square cross-section. Specially woven Garlock asbestos cloth, rubber impregnated (except outside surface). Wrapped around a resilient rubber core. Modified glycerol lubricant. Surface coated with graphite	COILS per box	6	6	6	4	4	4	4	3	3	2	2	1	1	1
	Feet per box	75	75	75	50	50	50	50	37 $\frac{1}{2}$	37 $\frac{1}{2}$	25	25	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$
	Pounds per box	$\frac{3}{4}$	1 $\frac{3}{4}$	3	3	4 $\frac{1}{2}$	6 $\frac{1}{2}$	8 $\frac{1}{2}$	7 $\frac{1}{2}$	9 $\frac{1}{2}$	8	9 $\frac{1}{2}$		6 $\frac{3}{4}$	8 $\frac{3}{4}$
	SPIRALS per box	4	3	2	1	1	1	1	1	1	1	1	1	1	1
	Feet per box	50	37 $\frac{1}{2}$	25	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$
	Pounds per box	$\frac{1}{2}$	$\frac{7}{8}$	1	$\frac{3}{4}$	1 $\frac{1}{4}$	1 $\frac{3}{4}$	2 $\frac{1}{4}$	2 $\frac{3}{4}$	3 $\frac{1}{4}$	4	4 $\frac{3}{4}$		6 $\frac{3}{4}$	8 $\frac{3}{4}$
Fabric jacket around a core of accordion-folded rubber-impregnated asbestos cloth, combined with resilient rubber strip. Square cross-section. Specially woven Garlock asbestos cloth, rubber impregnated (except outside surface). Externally treated with modified glycerol lubricant and graphite	COILS per box	6	6	6	4	4	4	4	3	3	2	2	1	1	1
	Feet per box	75	75	75	50	50	50	50	37 $\frac{1}{2}$	37 $\frac{1}{2}$	25	25	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$
	Pounds per box	$\frac{3}{4}$	1 $\frac{3}{4}$	3	3	4 $\frac{1}{2}$	6 $\frac{1}{2}$	8 $\frac{1}{2}$	7 $\frac{1}{2}$	9 $\frac{1}{2}$	8	9 $\frac{1}{2}$	5 $\frac{1}{2}$	6 $\frac{3}{4}$	8 $\frac{3}{4}$
	SPIRALS per box*	4	3	2	1	1	1	1	1	1	1	1	1	1	1
	Feet per box	50	37 $\frac{1}{2}$	25	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$
	Pounds per box	$\frac{1}{2}$	$\frac{7}{8}$	1	$\frac{3}{4}$	1 $\frac{1}{4}$	1 $\frac{3}{4}$	2 $\frac{1}{4}$	2 $\frac{3}{4}$	3 $\frac{1}{4}$	4	4 $\frac{3}{4}$	5 $\frac{1}{2}$	6 $\frac{3}{4}$	8 $\frac{3}{4}$
Fabric construction, with lead wedge. Square cross-section. The wedge-shaped soft bearing metal is set in a channel of woven, rubber-frictioned Garlock asbestos cloth. Wearing surfaces of wedge are staggered to assure pressure-tight, yet continuous contact with rod. Modified glycerol lubricant. Externally graphited	SPIRALS per box					1		1		1		1		1	
	Feet per box					12 $\frac{1}{4}$		12 $\frac{1}{2}$		12 $\frac{1}{2}$		12 $\frac{1}{2}$		12 $\frac{1}{2}$	
	Pounds per box					2 $\frac{1}{4}$		5 $\frac{1}{4}$		8		11 $\frac{1}{4}$		15 $\frac{3}{4}$	20 $\frac{1}{2}$
Laminated fabric plied up and furnished in rectangular cross section. These rings are of Garlock asbestos cloth, frictioned with high grade SBR rubber binder. Rubber top and bottom covers. Treated with beeswax lubricant. Surface graphite coated. (Also available without graphite.)		Style 7130 available in rings with beveled joint, or "solid" if so specified. Available from stock in the standard sizes on the right. $\frac{15}{16}$" x $1\frac{1}{16}$" x $\frac{1}{2}$" $\frac{15}{16}$" x $1\frac{1}{16}$" x $\frac{1}{4}$" $\frac{15}{16}$" x $\frac{7}{8}$" x $\frac{1}{4}$"													

*1 $\frac{1}{4}$ " and 1 $\frac{3}{4}$ " also available in spiral only



918



944

GARLOCK FLEXIBLE METALLIC PACKINGS

... low friction, long-lasting packings for service against high temperatures and high pressures

Garlock manufactures a wide selection of high quality flexible metallic packings capable of withstanding a variety of mediums on various types of equipment. Garlock Flexible Metallic Packings of lead, copper or aluminum are made into several different forms, including braided, twisted, pleated or spiral-wrapped. They provide the necessary high temperature and high pressure resistance, yet are sufficiently flexible and compressible to assure a tight, long-lasting seal.

GARLOCK FLEXIBLE METALLIC LEAD PACKINGS

SERVICE	STYLE	APPLICATIONS
Steam, air, water, ammonia, gases and oils up to 550°F.	631	Rods or shafts of centrifugal or reciprocating pumps, engines, valve stems, or expansion joints
Water or oil hydraulic service up to 550°F.	918	Rotary and reciprocating shafts and rods of pumps or engines, valve stems
Steam, air, water, ammonia, gases and oils up to 550°F.	944	Reciprocating rods or rotary shafts of engines, compressors, pumps. Especially recommended for rods not in perfect alignment
Steam, air, water, ammonia, gases and oils up to 550°F.	981	Shafts of rotary or centrifugal pumps. Outside-packed plungers of reciprocating pumps, reciprocating rods, valve stems

RECOMMENDED PACKING SERVICE APPLICATIONS

	Oil*	Water	Steam	Air	Gases (except Ammonia)	Liquid or Gaseous Ammonia	Dowtherm† A	Dowtherm† E
Valve Stems	631 633	631	631 635	631 635	631 635	631 633	633	937 635
Rotary Pumps	913					913	913	
Reciprocating Pumps and Compressors	631 633	631	631 635	631 635	631 635	631 633	633	631** 635
Expansion Joints	913						913	
End Rings	913	344	344	344	344	913	913	344

*Copper foil preferred by some instead of aluminum for low sulfur content oils

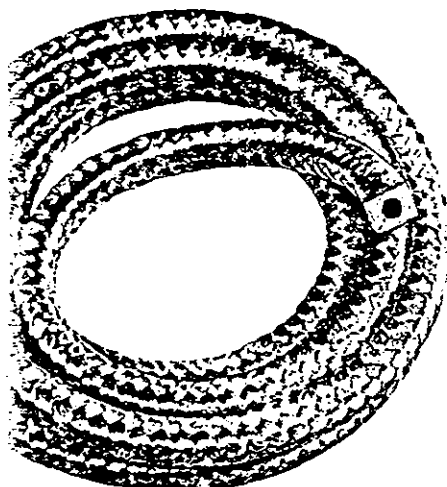
**Use up to 450° F only

†Dow Chemical Co. trademark

for service on rotary and reciprocating equipment and where packing must function somewhat as a bearing

CONSTRUCTION AND MATERIALS	PACKING SIZES	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"
Twisted. Square cross-section. Lubricated and graphited lead foil twisted around an asbestos core. A highly resilient packing	SPIRALS per box			1	1	1	1	1								
	Feet per box			12 1/2	12 1/2	12 1/2	12 1/2	12 1/2								
	Pounds per box			2 1/4	3 1/2	5	6 3/4	8 1/4								
Spiral-wrapped. Square cross-section. Lead foil around center core of braided and lubricated asbestos	SPIRALS per box			1	1	1		1		1		1			1	1
	Feet per box			12 1/2	12 1/2	12 1/2		12 1/2		12 1/2		12 1/2			12 1/2	12 1/2
	Pounds per box			1 1/4	1 1/2	2 3/4		4 1/4		6 1/4		9 1/2			14	17
Braided. Approximately square cross-section. Cotton yarn strands covered with lead foil and braided over a round core of resilient rubber. Lubricated with oil. Graphited throughout	COILS per box			1	1	1	1	1	1			1				
	Feet per box			50	45	39	36	30	24	22		17				
	Pounds per box			4 3/4	6 1/4	8 1/4	10 1/4	11 1/4	11 3/4	12 3/4		14 3/4				
Twisted with braided cover. Square cross-section. Strands of composition lead foil, bonded with special rubber cement, twisted to size and graphited. Braided yarn cover, graphited	COILS per box	*	*	2	2	2	2	2		1		1				
	Feet per box	*	*	30	30	30	30	30		15		15				
	Pounds per box	*	*	5	8	11 1/2	15 1/2	20		16		23				

*Available in spool form; Styles 918, 981 and 631 also available in rings. 631 also available in coils



344

GARLOCK FLEXIBLE METALLIC COPPER PACKINGS

SERVICE	STYLE	APPLICATIONS
Temperatures up to 1500°F.	344	Heavy hydraulic service. As end or "bull" rings, used in combination with other packings, to prevent extrusion where abnormal clearances between rod and stuffing box exist
Steam, air, water, gases and low content sulfur oils up to 1000°F.	635	Centrifugal or reciprocating pumps, valves, expansion joints, and other high pressure equipment
Temperatures up to 1500°F.	937	Reciprocating rods of compressors, engines, pumps; shafts of rotary or centrifugal pumps; valve stems



913

GARLOCK FLEXIBLE METALLIC ALUMINUM PACKINGS

SERVICE	STYLE	APPLICATIONS
Hot oils and hot petroleum derivatives at temperatures to 1000°F.	633	Centrifugal and rotary pumps, valves, still necks, expansion joints. Ideal for processing plants and paper mills
Hot oils and hot petroleum derivatives at temperatures to 1000°F.	913	Centrifugal and reciprocating pumps, valves, still necks or other equipment handling hot crude oil, gas or distillates

FOR ORDERING INFORMATION,
SEE PAGE P-30

for service on rotary and reciprocating equipment, particularly where temperatures are high

CONSTRUCTION AND MATERIALS	PACKING SIZES	$\frac{1}{8}"$	$\frac{3}{16}"$	$\frac{1}{4}"$	$\frac{5}{16}"$	$\frac{3}{8}"$	$\frac{7}{16}"$	$\frac{1}{2}"$	$\frac{5}{8}"$	$\frac{3}{4}"$	$\frac{7}{8}"$	$1\frac{1}{8}"$	$1\frac{1}{4}"$	$1\frac{3}{8}"$	$1\frac{1}{2}"$
Regular braid. Square cross-section. Fine cooper wire. Not lubricated or otherwise treated	Coils per box			1	1	1	1	1	1	1	1	1	1	1	1
	Feet per box			50	45	39	35	30	24	22	19	17	15	15	15
	Pounds per box			7	$9\frac{1}{8}$	$12\frac{1}{8}$	$15\frac{1}{2}$	$16\frac{1}{8}$	17	$19\frac{1}{4}$	$20\frac{1}{4}$	$21\frac{1}{2}$	$22\frac{1}{4}$	26	$29\frac{1}{4}$
Twisted. Square cross-section. Lubricated, graphited copper foil, twisted around an asbestos core. Twisting forms crevices in foil to hold high-temperature oil and provide auxiliary lubricant	Spirals per box	1	1	1	1	1	1	1	1						
	Feet per box	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$		$12\frac{1}{2}$					
	Pounds per box	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{4}$		5					
Regular braid. Square cross-section. Special copper tinsel, bonded with rubber cement. Surface-coated with graphite	Coils per box			1	1	1	1	1	1		1				1
	Feet per box			50	45	39	36	30	24	22		17			15
	Pounds per box			$4\frac{3}{4}$	$6\frac{1}{4}$	$8\frac{1}{4}$	$10\frac{1}{8}$	$11\frac{1}{4}$	$11\frac{1}{4}$	$12\frac{1}{8}$		$14\frac{1}{8}$			$22\frac{1}{2}$

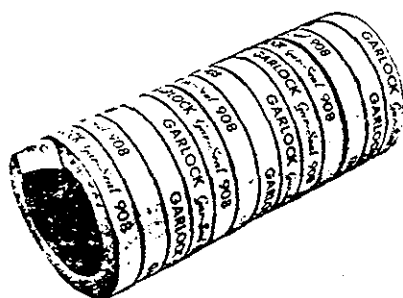
All styles also available as rings

for service on rotary and reciprocating equipment, valve stems, still necks, expansion joints

CONSTRUCTION AND MATERIALS	PACKING SIZES	$\frac{1}{8}"$	$\frac{3}{16}"$	$\frac{1}{4}"$	$\frac{5}{16}"$	$\frac{3}{8}"$	$\frac{7}{16}"$	$\frac{1}{2}"$	$\frac{5}{8}"$	$\frac{3}{4}"$	$\frac{7}{8}"$	$1\frac{1}{8}"$	$1\frac{1}{4}"$	$1\frac{3}{8}"$	$1\frac{1}{2}"$
Twisted. Rectangular cross-section. Lubricated and graphited aluminum foil, twisted around an asbestos core	Spirals per box			1	1	1		1							
	Feet per box			$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$		$12\frac{1}{2}$							
	Pounds per box			$\frac{1}{2}$	$\frac{3}{4}$	1		$1\frac{3}{4}$							
Pleated. Square cross-section. Pleated aluminum foil wrapped around core of braided dry asbestos. Two spirally-wound covers of aluminum foil. Pockets in foil pleats carry lubricant and graphite ... provide auxiliary lubrication supply. A flexible packing ... can be formed into rings without distortion	Spirals per box			1	1	1		1		1		1			1
	Feet per box			$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$		$12\frac{1}{2}$		$12\frac{1}{2}$		$12\frac{1}{2}$			$12\frac{1}{2}$
	Pounds per box			$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$		$1\frac{1}{4}$		$2\frac{1}{4}$		$4\frac{1}{4}$			$7\frac{1}{2}$

Both styles also available as rings

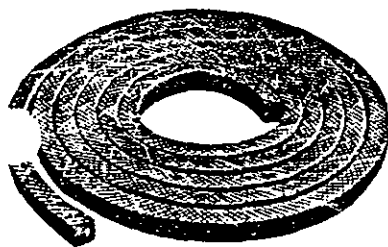
Garlock Plastallic Packings are soft and readily formable. Every style is scientifically compounded with pure asbestos, special lubricants and binders, and graphite or mica. Some styles contain soft bearing metals. All are particularly suited to sealing gases and highly mobile liquids. Garlock Plastallic Packings are available in coil, spiral and formed rings. Coil and spiral forms have rectangular cross sections. Rings are approximately square in cross section. These forms are installed the same way as any other type of coil, spiral or ring packings.



908

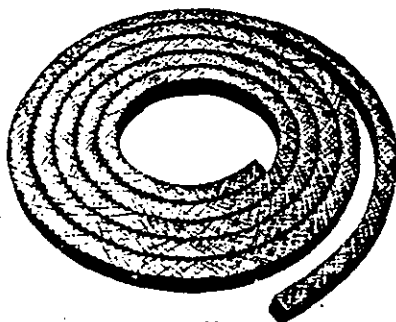
GARLOCK PLASTALLIC PACKINGS

SERVICE	STYLE	APPLICATIONS
Steam, air, water, weak acids and inert gases to 600°F.	908	Shafts of centrifugal or rotary pumps, reciprocating rods and valve stems
Steam, air, water, weak acids and inert gases to 600°F. Meets Specification MIL-P-17303-C, Class I, Type B, Symbol 1433	909	Shafts of centrifugal or rotary pumps, reciprocating rods and valve stems



927

SERVICE	STYLE	APPLICATIONS
Strong mineral acids (including nitric acid) and strong alkaline solutions	924	Shafts of centrifugal or rotary pumps, valve stems, reciprocating rods and plungers
Oils, solvents up to 600°F; steam, gases and dilute aqueous solutions (except mineral acid solutions)	927	Shafts of centrifugal or rotary pumps, reciprocating rods, plungers and valve stems
Oils, solvents up to 600°F; steam, gases and dilute aqueous solutions (except mineral acid solutions)	928	Shafts of centrifugal or rotary pumps, reciprocating rods, plungers and valve stems
Oils, solvents up to 600°F; steam, gases and dilute aqueous solutions (except mineral acid solutions)	930	Shafts of centrifugal or rotary pumps, reciprocating rods, plungers and valve stems
Strong mineral acids (including nitric acid), organic solvents and strong alkaline solutions at low or high pressures. Temperature from -90°F. to +500°F.	9166	Shafts of centrifugal or rotary pumps, reciprocating rods, plungers and valve stems, particularly where highly corrosive fluids are involved
Strong mineral acids, alkaline solutions and all types of solvents and gases	9165	Reciprocating rods, rotary shafts and valve stems
Strong mineral acids (including nitric acid), alkaline solutions, all types of solvents and gases from -90°F. to +500°F.	9167	Reciprocating rods, rotary shafts and valve stems made of metal, glass or porcelain



9166

All styles shown available in Ring form.
Molded to specified size within following
limitations:

	Min.	Max.
I.D.	3/8"	10"
O.D.	5/8"	11 1/2"
Packing Space	1/8"	1"

Carlock Plastallic Packings are also available in bulk form, packaged in cans. This loose packing is easily installed by tamping evenly and tightly into stuffing box, and drawing open the gland until leakage is properly controlled. In service, this bulk packing becomes a homogeneous mass or bushing. When additional packing is required, just add more plastallic. Old plastallic bulk packing need not be removed.

for use on reciprocating rods, rams and plungers; centrifugal and rotary shafts; valve stems; expansion joints

CONSTRUCTION AND MATERIALS	PACKING SIZES	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1"
A non-metallic, dry graphited packing. Asbestos fibers and graphite, bonded together with a water-resistant, oil-resistant binder. Special corrosive-inhibiting agent	Spirals per box	1	1	1	1	1	1	1	1
	Feet per box	19	17	15	17	16	16	15	15
	Pounds per box	1 1/2	1 1/4	1 3/8	2 1/4	3 1/2	5 1/4	6 7/8	11
A dry, graphited plastic packing of asbestos fibers, lead particles and graphite bonded with a water-and-oil-resistant binder. Has corrosion inhibiting agent	Spirals per box	1	1	1	1	1	1	1	1
	Feet per box	19	17	15	17	16	16	15	15
	Pounds per box	1 1/4	2	2 1/2	3 1/4	5 1/2	8	10	17 1/4
CONSTRUCTION AND MATERIALS	PACKING SIZES Specify Size	1/32" Round (OX)	1/16" x 1/16" (X)	3/16" x 1/16" (3-8X)	1/2" x 3/16" (2X)	3/4" x 1/8" (3X)	1" Square (4X)	Available in bulk:	
A non-metallic plastic packing of African blue asbestos fiber and special bonding material containing acid-resistant lubricant and graphite. Coils and rings have a skeleton-braided cover of glass yarn	Coils per box	**	**	**	3	2	1	1 1/2 lb. cans	
	Feet per box	435	73	43	51	26	20		
	Pounds per box	5	5	5	10 3/4	11	11 1/2		
Asbestos fiber, shredded composition lead foil. Special bonding compound containing lubricant and graphite. Coils and rings have skeleton-braided covers of black cotton yarn with a single red strand	Coils per box	**	**	**	3	2	1	2 1/4 lb. canst	
	Feet per box	225	43	25	51	26	20		
	Pounds per box	5	5	5	20 1/2	21 1/4	23 1/2		
Asbestos fiber, shredded copper foil. Special bonding agent containing lubricant and graphite. Coils and rings have skeleton-braided covers of black cotton yarn with a single yellow strand	Coils per box	**	**	**	3	2	1	2 lb. canst	
	Feet per box	265	51	30	51	26	20		
	Pounds per box	5	5	5	15	16	18		
A non-metallic packing of asbestos fiber and a special bonding compound containing lubricant and graphite. Coils and rings have skeleton-braided covers of black cotton yarn with two red strands	Coils per box	**	**	**	3	2	1	2 lb. cans	
	Feet per box	420	70	41	51	26	20		
	Pounds per box	5	5	5	11	11 1/4	12		
A plastic packing of TFE powder, graphite and synthetic hydrocarbon binder. Coils and rings have skeleton-braided covers of TFE yarn	Coils per box	**	**	**	3	2	1	As ordered in even pound cans	
	Feet per box				51	26	20		
	Pounds per box	5	5	5	13 1/4	11 1/4	12 1/4		
A dry rod or shaft packing of pure TFE powder. Has no binder	Available in ring or bulk form							As ordered in even pound cans	
A plastic packing of shredded TFE, thoroughly impregnated with TFE suspensoid	Available in ring or bulk form							As ordered in even pound cans	

**Size OX on 1, 2 or 5 pound spools; Size X on 2 or 5 pound spools; Size 3-8X on 5 pound spools.
Read "Feet per Box" as "Feet per Spool"

*Loose forms of 927 and 928 furnished with twisted lead ribbon end ring material

HOW TO ORDER GARLOCK SOFT PACKING

When ordering, it is essential we have certain information about service conditions, equipment, etc. Please use the following outline as a guide:

1. If possible, send a blueprint or sketch of stuffing box and surrounding equipment.
2. Submit information about condition of equipment. (Surface finishes, runout, etc.)
3. Normal operating hours; whether intermittent or continuous; rpm or cycles per minute, and length of stroke.
4. Medium handled, or that which will come in contact with packing (be as specific as possible... concentrated hydrochloric acid, propane gas, etc.)
5. Temperature of medium.
6. Pressure encountered.
7. Dimensions: (a) Rod or shaft diameter(s); (b) Bore of stuffing box(es); (c) Inside depth of stuffing box(es); (d) Bevels (if any).
8. Lantern ring location, when applicable.
9. Number of stuffing boxes per machine or unit.

POSSIBLE CAUSES OF PACKING FAILURES

Many times causes of packing failure are not readily apparent. However, careful examination of the used packing will often indicate the factors causing this failure.

Listed below are some examples of how certain clues can pinpoint these underlying causes.

☉ *If one or more rings are missing from the set—*

Look for a badly worn stuffing box bottom with packing being extruded into the system. (As a result of this condition, packing may get into the valve traps or contaminate the fluid being handled.)

☉ *If packing thickness, directly over or on either side of shaft, has changed—*

Look for badly worn bearings, causing shaft whip or rod or plunger that's out of alignment.

☉ *If packing cross section directly beneath the rod, shaft or plunger is excessively reduced or early leakage occurs at top of rod or shaft—*

Look for low bearings with shaft or rod riding on packing.

☉ *If outside diameter of packing is worn—*

Look for loose rings or ring rotating with shaft.

☉ *If one or more rings have "bulges" in the faces—*

Look for adjacent rings cut too short, causing packing under pressure to be forced into joints.

☉ *If bottom rings are in fair condition yet rings next to gland followers are prematurely deformed—*

Look for improperly installed packings and use of excessive gland pressure.

☉ *If packings tend to sheet-out or extrude between rod or shaft and gland follower—*

Look for too great a clearance between rod or shaft and gland follower. Use of an anti-extrusion ring may be necessary if pressure is high or if clearances cannot be reduced.

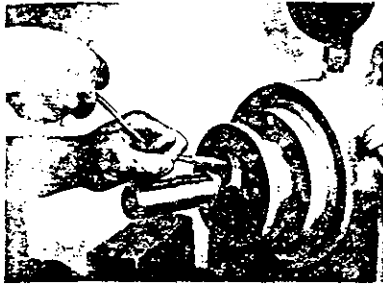
Temperature Limitations of Various Packing Materials

1500° F. Copper	500° F. TFE and lead
1000° F. Aluminum	250° F. Duck and Rubber
750° F. Pure Asbestos	200° F. Cotton
(white or blue)	175° F. Flax and Jute

Recommended Use of Asbestos According to Acidity or Alkalinity of Solutions

pH 14 and stronger OH ⁻	Blue Asbestos
pH 4 to pH 14	White Asbestos
pH 4 and stronger H ⁺	Blue Asbestos

MISCELLANEOUS GARLOCK MAINTENANCE PRODUCTS

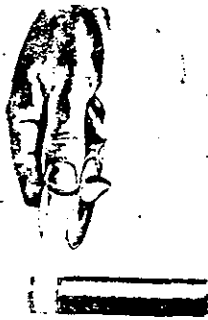


GARLOCK FLEXIBLE PACKING HOOKS
for quick, easy removal of old packing
from stuffing boxes

The flexible shafts of these sturdy, high-grade packing hooks make it much easier to remove old packing from cramped or hard-to-reach areas. The sharp point of the screw tip is easily inserted and anchored in the packing. And, should the tip become damaged, it can be easily unscrewed and replaced on the spot. Also, the threaded end of the flexible shaft (with screw tip removed) may be used to remove tapped lanterns, bushings or other removable metal rings.

The complete set, packaged in a strong metal box, includes: *Two No. 1 Flexible Hooks* 7½" long, with screw tip for packing spaces as small as 5/16". Screw thread size: 8-32. *One Extra Screw Tip* for No. 1 hook. *Two No. 2 Flexible Hooks* 10½" long, with screw tip for packing spaces from 7/16" up. Screw thread size: 1¼-20. *One Extra Screw Tip* for No. 2 hook. *One No. 4 Solid Curved-End Hook* with L-shaped handle. *One No. 5 Solid Curved-End Hook* with looped handle, ⅜" shank. *One No. 6 Solid Curved-End Hook* with looped handle, 3/16" shank. *One Open-End Wrench*.

To order complete sets, specify Set "D." All hooks, and extra screw tips for Nos. 1 and 2 may be individually purchased.

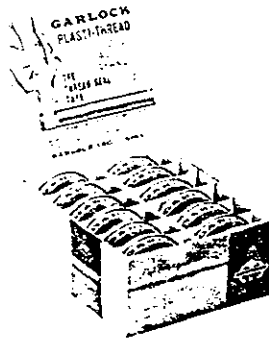


GARLOCK PLASTI-THREAD
the TFE Thread Seal Tape

The quickest, neatest, cleanest way to seal a threaded joint. Longest-lasting and most effective, too. Plasti-Thread, the TFE thread seal tape, is 100% pure fluorocarbon in ribbon form; will seal thread joints in any pipe

including stainless steel, copper, plastic, brass, galvanized metal and aluminum. It is chemically inert, corrosion resistant. Withstands temperature extremes from -400°F. to +600°F. Plasti-Thread, the TFE thread seal tape, is non-hardening, permanently self-lubricating for fast assembly or disassembly. And, being non-toxic, it will not affect food, fuels, petro-chemicals, etc.

Easy-to-use! Just clean threads of oil and grime...wrap threads with Plasti-Thread TFE thread seal tape...join pipe in normal manner.



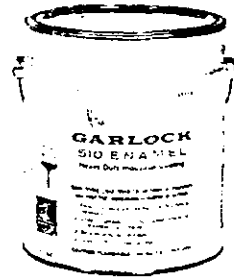
PACKAGING: Garlock Plasti-Thread TFE thread seal tape is packaged in convenient spools in two sizes: ½" x 520" and ½" x 1296". Either size available in 12-spool cartons at substantial savings.



NEW GARLOCK FORMULA 116
PENETRATING OIL

A multi-purpose penetrating oil for general maintenance use, Garlock Formula 116 effectively penetrates corroded surfaces, scale, grease and dirt. Also acts as a moisture displacing agent and residual lubricant. Use it for *Freeing* rusty threaded connections... *Loosening* red and white lead, tar, grease, dirt and graphite without injury to basic metals, paint or wood... *Removing* rust, scale and carbon deposits without harming basic metals... *Starting* wet engines by spraying on ignition wires and around spark plugs... *Lubricating* rusted surfaces to prevent further seizing... *Cleaning* tar or grease from surfaces.

PACKAGING: Garlock Formula 116 Penetrating Oil is packaged in handy aerosol cans containing 5 ounces, avoirdupois, each. 12-Can Economy Pack also available.



NEW GARLOCK 510 ENAMEL

A revolutionary new heavy-duty industrial coating that virtually eliminates costly, time-consuming surface preparation.

NO DE-GREASING NECESSARY. Just remove excess oil, water, loose dirt, and scale... then apply Garlock 510 Enamel. It actually penetrates oil, moisture and rust to form a perfect bond to any type of metal.

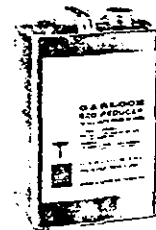
NO PRIMER REQUIRED. Garlock 510 Enamel covers all raw and sound previously painted surfaces. Even new galvanized surfaces need no pre-treatment or "tinning."

DRIES IN 20 MINUTES to a hard, long-lasting gloss finish. Downtime becomes a matter of minutes instead of hours. And, there is no lingering paint odor.

APPLY WITH REGULAR EQUIPMENT. Garlock 510 Enamel goes on smoothly, evenly with brush, roller or spray equipment. Never dries in the can... doesn't even skin over. Easy cleanup, too, with Garlock 520 Reducer or any high quality lacquer thinner.

USE Indoors OR Outdoors. In addition to being ideal for protecting and dressing-up indoor equipment, Garlock 510 Enamel works equally well on equipment constantly exposed to the outdoor elements.

AVAILABLE IN EIGHT COLORS: Green, Gray, Blue, White, Yellow, Orange, Red, Black.



GARLOCK 520 REDUCER. Used to thin Garlock 510 Enamel for use in spray equipment. Also used in cleaning painting equipment, and when a first quality lacquer thinner is required.

SPECIFICATIONS

GARLOCK PART NUMBER: Garlock 510

PACKAGING: 510 Enamel—gallon cans

520 Reducer—gallon cans

COVERAGE: Approximately 450 feet per gallon

APPLICATION: Brush, roller or spray

DRYING TIME: 20 minutes or less

MISCELLANEOUS GARLOCK MAINTENANCE PRODUCTS—continued

GARLOCK LUBRICATING PASTES

Packings in operation must receive regular and proper lubrication to insure most efficient operation. Too little or the wrong kind of lubrication results in excessive friction, scored rods, leaks and ultimate destruction of packing. The two Garlock Lubricating Pastes, described below, have been developed to provide proper packing lubrication against water, steam and common chemical service up to 500° F.



GARLOCK LUBALL® packing lubricant with Moly-S^{*} for water, steam and common chemical service up to 500° F.

This improved packing lubricant has been proved in the field to give highly dependable, long-life service and smooth operation. LUBALL packing lubricant will make your packing last longer, and you won't have to tighten glands as often. This will save both time and money.

This completely waterproof lubricating paste contains no graphite, no soap or fillers to clog orifices. It withstands temperatures to 500° F... maintains viscosity throughout its usable temperature range... never melts. It is insoluble in water... retaining all its properties. Will not separate or break down.

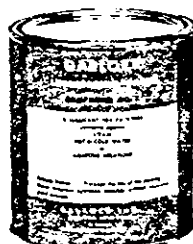
Moly-S^{*} gives LUBALL packing lubricant its superior lubricating properties because: it fills metal pores on contact... deposits a thin film that becomes an integral part of the metal; has very low shear strength... does not build up as a deposit if additional quantity is added; has very low coefficient of friction... reduces operating friction drastically.

Application is easy by one of three methods: 1. Externally at time of packing installation. 2. Injecting into stuffing box through a pressure fitting. 3. Using a screw compression cup with lantern ring in stuffing box.

LUBALL packing lubricant is supplied in 1

*Garlock trademark for molybdenum disulfide.

lb., 4 lb. and 7 lb. cans... and 20 lb., 35 lb. and 70 lb. pails. CAUTION: NOT TO BE USED AS A BEARING LUBRICANT.



GARLOCK COMPOUND NO. 2 WITH GRAPHITE for steam and water service

This high-quality lubricating paste prolongs the life of any rod packing working against steam, hot water, cold water, or aqueous solutions. Its outstanding advantages include: high lubricating value, reducing friction to a minimum; long lubricating life, because of its heat resistance and wearing qualities; maintenance of proper viscosity at all times... even under heat; complete resistance to water and steam; ability to inhibit rust and corrosion... particularly recommended for use on new equipment.

Garlock Compound No. 2 should be heavily applied to packing before it is installed. Subsequent applications may be made through pressure fitting or grease cup... or by swabbing the rod or plunger.

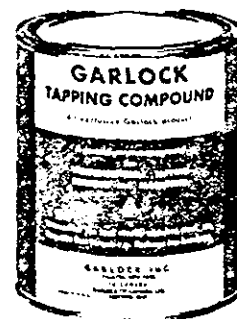
Compound No. 2 Lubricating Paste is supplied in 12 oz., 20 oz., 5 lb. and 10 lb. cans; and in 25 lb., 50 lb. and 100 lb. pails.

GARLOCK TAPPING COMPOUND... an all-purpose compound for use in metal operations

Garlock Tapping Compound is recommended for many jobs including: tapping, reaming, broaching, thread cutting, drilling, boring, milling, lathe turning, lubricating, lubricating lathe centers, press-fitting die bushings, punches, etc.

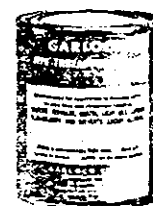
Garlock Tapping Compound helps improve production and lower costs because it reduces amount of torque required, permits higher speeds in metal machine operations, reduces tool breakage and work spoilage.

READY TO USE. Just stir and apply to work with a brush or oil can. Compound may be



thinned with mineral oil if desired. Not intended for regular coolant systems.

Garlock Tapping Compound is supplied in 1 lb. cans with 24 cans per case; in 2 lb. cans with 12 cans per case; in 8 lb. and 40 lb. cans; and 400 lb. drums.



GARLOCK PIPE THREAD COMPOUND for permanently tight joints

Garlock Pipe Thread Compound for those who prefer the daub-on type. A tried and proved material you can depend upon for permanently tight threaded joints in pipelines and other equipment.

AVAILABLE IN TWO TYPES: TYPE A for use against steam, dry gas, water, alcohol, hot or cold heavy oils. TYPE B for use against gasoline, light oils, kerosene, carbon tetrachloride, benzol and solvents (except alcohol).

Ready to apply as it comes from the can. No thinning needed. Just stir and apply to pipe threads with dauber or short-bristled, stiff brush.

Garlock Pipe Thread Compound of both types is supplied in 1 lb., 2 lb. and 4 lb. cans; and in 40 lb. and 80 lb. pails.

GARLOCK INC. General Offices and Main Factories: PALMYRA, N. Y. 14522