

Coltec Industries



Garlock Inc
Mechanical Pack
1666 Division Street
Palmyra, New York 14522-9355
315/597-4811
Telex No.: 249584
Panafax No.: 315/597-5556 or —
315/597-3216

RECEIVED

OCT 18 1990

CONDENSER ENG'G

October 15, 1990

IMO Industries Inc.
Delaval Condenser Division
Front Street
Florence, NJ 08518
Attn: Henry W. Braun
Manager of Engineering

Dear Mr. Braun:

This letter is being written to you in response to your request for information concerning our Blue-Gard Style 3200 and its ability to pass the requirements of MIL-G-24696.

Enclosed you will find a copy of a typical test data sheet showing the physical properties of this product along with the leachable chloride content. With respect to the other detrimental materials, they have been determined by evaluation of the product formulation.

We are in the process of building the steam and hot water test equipment for use in obtaining a "QPL" status for this as well as other products. It is anticipated to have the construction of this test equipment completed by the end of this calendar year.

Attached you will find a letter from the Commander, Naval Sea Systems Command concerning MIL-G-24696. You will note on the last page that our Blue-Gard Style 3200 has been given tentative approval for use in fresh and salt water services.

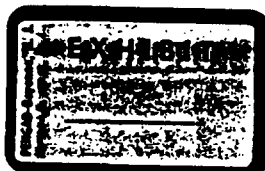
I trust this information meets with your approval. If I can be of any further service to you do not hesitate to contact me.

Best regards,

GARLOCK, INC.

Brian D. Crocker
Mgr., Applications Engineering

cc: M. Marrone
B. Ross
J. Stockton



TX0332

R. Bunnys
V. Collett

2164

LABORATORY TEST REPORT

type # 3200

Date 8/16/89

reference Specification MIL-G-24696

1062

1h/212

Requirements:

Spec.

Result

.4	Tensile Strength Transverse, psi min. 1/16" thk.	1700	✓	2904
.5	Leachable Chlorides ppm	250	✓	58.4
.6	Fluid Compatibility Distilled Water, 1000 hrs. @ room temp. Tensile Strength Transverse, psi min. 1/16"	1300	✓	1797
.7	Sealability Leak rate ml./hr., max.	2		
8	Compressibility & Recovery Compressibility, % Recovery, % min.	7-17 40	✓ ✓	8.6 62.3
9	Creep Relaxation % max.	60	✓	27.7
10	Adhesion Scale	3	✓	II
11	Flexibility 12T	No Cracking	✓	passed
12	Steam Exposure Performance Test	Satisfactory		
12	Water Exposure Performance Test	Satisfactory		

TX0333



RECEIVED BY DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, DC 20362-5101

FEB 5 1990

MAIL ROOM

CORRECTED COPY

9503
OPR 56Y21A3
Ser 56Y21/145
29 January 1990

From: Commander, Naval Sea Systems Command

Subj: NON-ASBESTOS GASKETS MIL-G-24696

Ref: (a) MIL-G-24696

Encl: (1) List of Approved and Tested Non-Asbestos Gaskets

1. Reference (a) is the new military specification for non-asbestos gaskets.

2. Reference (a) has a QPL. Candidates for the QPL will not be qualified for some time. In the interim, enclosure (1) may be used for those services indicated. In instances where enclosure (1) does not apply, candidates will be evaluated by NAVSEA on a case by case basis.

3. NAVSEA POC is C. Adams at (703) 602-6826 or autovon 332-6826.

M. A. Post
M. A. Post
By direction

Distribution
ALLIS-CHALMERS
1150 TENNESSEE AVENUE
CINCINNATI, OH 45229

AQUA-CHEM, INC
P O BOX 421
MILWAUKEE, IL 53201

BUFFALO PUMPS
DIV OF BUFFALO FORGE CO
6110 EXECUTIVE BLVD
ROCKVILLE, MD 20852

TX0334

Subj: NON-ASBESTOS GASKETS MIL-G-24696

Distribution (Cont):
BYRON JACKSON PUMP DIV
BORG WARNER CORPORATION
200 OCEANGATE BLVD
SUITE 800
LONG BEACH, CA 90802

CARVER PUMP COMPANY
P.O. BOX 389
2415 PARK AVE
MUSCATINE, IA 52761

COLT INDUSTRIES
FAIRBANKS MORSE PUMP DIV
3601 FAIRBAKS AVENUE
KANSAAS CITY, KS 66110

COLT INDUSTRIES
CHANDLER EVANS
CONTROL SYSTEMS DIVISION
CHARTER OAK BLVD
WEST HARTFORD, CT 6101

DOVER CORP
BLACKMER PUMP DIVISION
1809 CENTURY AVENUE SW
GRAND RAPIDS, MI 49509

FAIRBANKS MORSE PUMP
CORPORATION
2767 RIDGE ROAD
LIBRARY, PA 15129

FMS CORPORATION
NORTHERN ORDNANCE DIVO
COLUMBIA HEIGHTS P.O.
MINNEAPOLIS, MN 55421

GOULDS PUMP CO
75 FALL STREET
SENECA FALLS, NY

HALE FIRE PUMP COMPANY
700 SPRING MILL AVENUE
CONSHOHOCKEN, PA 19428

TX0335

Subj: NON-ASBESTOS GASKETS MIL-G-24696

Distribution (Cont):
INGERSOLL-RAND COMPANY
P.O. BOX 486
PHILLIPSBURG, NJ 8865

MEGATOR CORP
562 ALPHA DRIVE
PITTSBURGH, PA 15233

M.T. DAVIDSON COMPANY
1010 THIRD AVENUE
NEW YORK, NY 10021

PACIFIC PUMPS DIVISION
DRESSER INDUSTRIES INC
5715 BICKETT ST
HUNTINGTON PARK, CA 90255

PEABODY BARNES
651 NORTH MAIN ST
MANSFIELD, OH 44902

PEERLESS PUMPS
A STERLING COMPANY
PO BOX 301
222 W. LANCASTER AVE
DEVON, PA 19333

SCHUTTE AND KOERTING CO
SUB. OF AMETEK INC
STATE ROAD
CORNWELL HEIGHTS, PA 19020

SHARPLES-STOKES DIV
PENNWALT CORP
955 MEARNS ROAD
WARMINSTER, PA 18974

TRANSAMERICA DELAVAL
IMO PUMP DIVISION
PO BOX 447
AIRPORT RD
MONROE, NC 28110

TX0336

Subj: NON-ASBESTOS GASKETS MIL-G-24696

Distribution (Cont)
VIKING PUMP DIVISION
HOUDAILLE INDUSTRIES INC
406 STATE ST
CEDAR FALLS, IA 50613

WARREN PUMPS DIVISION
HOUDAILLE INDUSTRIES
200 BRIDGES AVE
WARREN, MA 1083

WILSON SNYDER PUMPS
UNITED STATES STEEL CORP
4040 FOREST LANE
GARLAND, TX 75042

WORTHINGTON GROUP
DRESSER INDUSTRIES
401 WORTHINGTON AVENUE
HARRISON, NJ 7029

Commanding Officer, Navy Ships Parts Control Center
5450 Carlisle Pike, P. O. Box 2020
Mechanicsburg PA 17055-0788

TX0337

LIST OF APPROVED AND TESTED NON-ASBESTOS GASKETS

<u>Company</u>	<u>Gasket Designation</u>
✓Garlock	Blue Gard 3200
✓Manville	Red Devil
✓Claremont	Rotex 30
✓Armstrong	TN 9001
✓Klinger	C 4400
✓Anchor	443A
✓Garlock	Blue Gylon

NOTE: These gasket materials are recommended for fresh and salt water applications at pressures up to 400 psi and temperatures up to 300F; however, they are not acceptable for nuclear applications which impact the nuclear propulsion plant.

TX0338

BCC: MIL-G-24696 File
Non Asbestos Material File



Imo Industries Inc.
Delaval Condenser Division
Front Street
Florence, NJ 05518
609-499-3000
FAX: 609-499-4214

420/02/HWB D1/GLK72090

July 20, 1990

Garlock Inc.
Mechanical Packing Division
1666 Division Street
Palmyra, New York 14522-9355

Attention: Ms. Agnes Potepan
Manager, Sheet & Gasket Engineering

Subject: Garlock Non-asbestos Gasket Material
MIL-G-24696 dated 21 March 1989
Reference A Telecon

Reference: A. July 19, 1990 Phone Conversation - H. W. Braun, Delaval Condenser Division, and Agnes Potepan, Garlock Inc.

Dear Ms. Potepan:

Thank you very much for the courtesy extended and information you supplied me during our phone conversation (Reference A).

As I understood you, Garlock can provide documentation showing that Garlock 3200 material meets the requirements of MIL-G-24696 with regard to composition and physical properties and leaching of detrimental materials.

Would you please send us a copy of this data and also a letter indicating what your current status is for obtain your QPL listing?

Currently, we have purchased your Garlock 3200 material from one of your distributors; James E. Dooley Company, 1101 Sussex Boulevard, Broomall, PA 19008. The use of the material prior to full qualification has been approved by our customer; however, to satisfy our rigorous quality conformance requirements, we need objective evidence. A copy of this letter is being provided to your distributor.

Again, thank you for your assistance and offer to provide objective evidence on Garlock 3200 testing to date.

Yours very truly,

A handwritten signature in cursive script, reading 'Henry W. Braun'. The signature is written in dark ink and is positioned above the typed name.

Henry W. Braun
Manager of Engineering

HWB:bf

TX0339

c.c.: James E. Dooley Company
1101 Sussex Boulevard
Broomall, PA 19008
J. J. Csenteri
T. P. Dooley
J. Gansky

