G-PAC

NON ASBESTOS, SELF LUBRICATING & PUTTY TYPE

STUFFING BOX SEALANTS

with virtually zero leakage...

NO SEAL WATER IS REQUIRED

Outlasts and out performs braided packing...

"State Of The Art"

GLAND PACKING COMPOUNDS

WHAT IS G-PAC?

G-PAC is a non-asbestos, universal, Self lubricating, Gland Packing Compounds, which has unlimited shelf-life. It has a malleable (putty-like) consistency and is made from a carefully controlled blend of high-tec synthetic fibers and specially formulated lubricants and greases, which can be moulded into virtually any shape.

WHERE IS G-PAC USED?

G-PAC provides the efficient seal required for stuffing boxes of all types of pumps, both reciprocating and rotary-valves-agitators-autoclaves etc. Depending upon equipment and the type of G-PAC selected, it can withstand application upto 3650 RPM, 500°F, pH 0 -14, pressures upto 250 P.S.I. on pumps, 500 P.S.I. on valves.

WHY IS G-PAC BETTER THAN PACKING?

- # G-PAC is completely leakproof under normal conditions and outlasts and outperforms braided Packings WITH ZERO LEAKAGE.
- # NO SEAL WATER IS REQUIRED thereby running free of any outside cooling/lubricating agents resulting in non-introduction of contaminants into the stuffing box.
- # NEVER NEEDS REPLACEMENTS.... small additions may be the only requirement from time to time.
- # G-PAC CANNOT BE DESTROYED BY SCORED/WORNOUT SHAFTS/SLEEVES and works well on them without any further damage or leaks.
- # Compensates for Scored/Wornout, shafts/sleeves AND CAN BE MOULDED VIRTUALLY INTO ANY SHAPES OR SIZE... braids, tresses or seals are no longer required.
- # EXTENDS THE USEFUL LIFE of either new or old equipments
- # Anti-corroisive and Anti-foulant AND WILL NOT HYDROLISE, DRY-UP, SHRINK, SWELL, OR HARDEN WHILE IN SERVICE even in warm moist environments.
- # Conventional packings are designed to leak to Prevent burn-up which by contrast G-PAC IS DESIGNED NOT TO LEAK and runs virtually Leak Free as efficiently as a MECHANICAL SEAL.
- # Quicker and easier to Install WITH REDUCED INVENTORY as one G-PAC box will take care of all sizes.
- # Because of SELF LUBRICATING PROPERTY there is less drag hence reduced electricity to operate
- # Abrasion free property introduced by BEARING PELLETS homogeneously mixed with G-PAC operates WITH REDUCED FRICTION, runs cooler and saves energy, downtime and money with torque problems eliminated, these assets are designed to minimise gland attention AND PREVENT WEAR TO SHAFTS/ SLEEVES with considerable reduction in overall plant maintenance costs
- # G-PAC offers reduced friction, lowest shaft wear, WIDE FLUID SYSTEM COMPATIBILITY and user economy with leak free operation forming a perfect durable seal.

G-PAC Formulas:

G-100 (GENERAL PURPOSE APPLICATION)

A mineral Oil wetted fibrous paste compound with bearing pellets made of lead for reduced friction & abrasion free property developed for use in Wastewater Treatment Plants, Sewage Plants, Slurry Pumps, Agriculture, Potable water, marine industry and many other general purpose applications. It is anti-foulant and used extensively as a valve--stem packing because it does not dry out or harden. It has a PHfactor 2-10. in most cases, G-100 gives zero leakage, will run cooler than conventional packing and needs less power to operate pump. Takes pressure upto 250 psi.in pump and upto 500 psi. in valves. Withstands temperature upto 250°C..

G- 200 (HOT WATER & BOILER FEED APPLICATIONS)

A siloxane wetted fibrous paste compound with bearing pellets made of lead for reduced friction & abrasion free property developed for hot water,hot oil and boiler feed applications.This tolerates a pH range of 2-12 and with stands temperature upto 290°c..

G-300 (HIGH CHEMICAL RESISTANCE)

A Flurocarbon wetted paste compound with bearing pellets made of Lead for reduced friction & abrasion free property developed for chemical process industries, Fertilizer, Petrochemical Industries, Refineries etc. This compound is used for extreme temperature range and 0-14 pH. G-300 shows a superior resistance to most chemicals, oils and solvents. Due to its composition, G-300 is chemically inert and is limited only by the chemical inertness of the heat tranfer agent. it will take all Chemicals except Oleum, Fuming Nitric Acid, Aqua Regia and elemental Flourine . Takes pressure up to 250 psi. in pumps upto 500 psi. in valves. withstands tamperature upto 290°C.

Without Lead Bearing Pellets

G-100 WLBP, G-200 WLBP & G-300 WLBP

Similar to above said G-100, G-200 & G-300 but without lead bearing pellets made of lead

G-400 (NON-STAINING, NON-CONTAMINATING, PURE WHITE, FOOD GRADE COMPOUND)

Non-staining, Non-contaminating pure white, non-asbestos, universal gland packing compounds with unlimited shelf life and a special blend of high-tec synthetic fibres forming a pure white compound of non-toxic materials suitable for potable water and other food grade applications where purity and cleanliness is of paramount importance. These compounds tolerates pH of 0-14 and temperatures from -400°F to + 600°F These 'LEAD' free formulas have been designed exclusively for potable water and other FOOD GRADE application.

G-500 (CARBON / GRPHITE COMPOUND)

A special blend of high-technology fibres containing pure CARBON/GRAPHITE high-tec fibres and special high temperature lubricants which provides the ultimate in sealing applications for critical areas having high temperature applications and with excellent chemical resistance in the entire pH range of 0-14. This makes G-500 a versatile packing which takes high pressure and withstands temperatures upto 3000°F in Non oxidizing conditions and upto 800°F in oxidizing conditions, shaft speeds upto 4000 F.P.M. with extremely low co-efficient of friction

Very few chemical agents have any effect on G-PAC Gland Packing Compounds. It has been used, with no reaction, to handle the following:

ACIDS AND BASES, BOTH ORGANIC AND INORGANIC, ALIPHATIC AND AROMATIC SOLVENTS * STEAM * WATER * SALTS * ESTERS * FATS * WAXES * OILS * CRYOGENIC AND CORROSIVE, LIQUIDS AND GASES

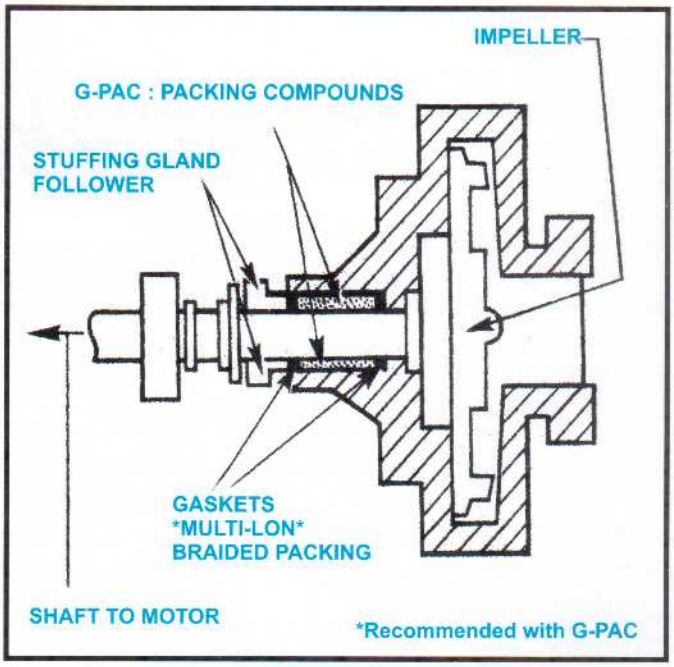
REMOVAL UNNECESSARY ... Once applied, G-PAC Gland Packing Compounds needs never to be removed. Small additions from time to time is the only requirement when required, packing is a simple activity.

ZERO LEAKAGE ... When properly applied, G-PAC Gland Packing Compounds is completely leakproof and never needs replacement. It does not harden with age. At long intervals, small additional amounts are added to the initial application. With the use of back-up washers, it will prove to be leakproof even in old, worn machinery when tolerances have become excessive for any other packing.

MINIMAL WEAR... Unlike braided packing, G-PAC Gland Packing Compounds will reduce scoring to a small fraction of the wear experienced with regular packings. It works extremely well with previously scored / wornout, shafts/ sleeves..

MINIMAL COST ... When compared to mechanical seals, G-PAC works as effectively, without the capital outlay and the necessary downtime for installation and repairs

LUBRICANTS AND COOLS ...
In addition to its unsurpassed sealing properties, G-PAC Gland Packing Compounds is also a superb lubricant that eliminates the need for supplementary, lubrications where it is applied. G-PAC is also a superb coolant and seldom requires the addition of other coolants and then only externally. Lantern rings and flush systems are never needed.

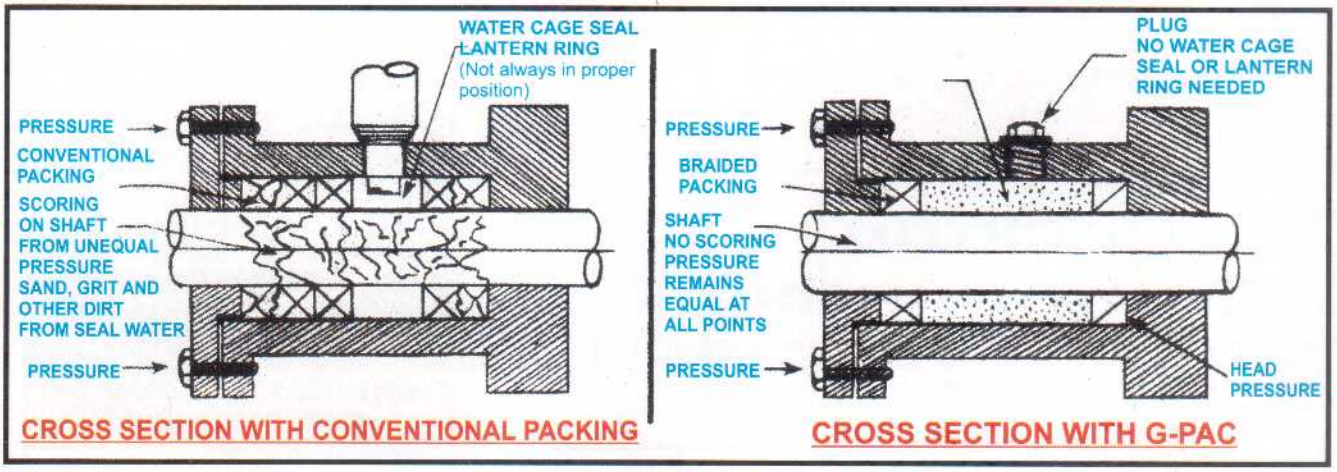


TYPICAL PUMP APPLICATION

UNLIMITED SHELF LIFE ...

Open or closed, the convenient containers of G-PAC which come packed six to a case from the factory will keep indefinitely until used with no deterioration in sealing, lubricating or cooling effectiveness G-PAC reduces inventory and replaces not only 90% of other packings, but also supplementary lubricants and coolants. It is also more economical because it materially extends the useful life of either new or old equipment, which results in less equipment down time, with lower labour costs and better production scheduling.

AVAILABLE IN 1 Kg. PACK



G-PAC: INSTALLATION INSTRUCTIONS

1. SHUT OFF ALL SEAL WATER / LUBRICATION SYSTEMS remove lines. Plug all holes with plug fittings (if there is an exit vent, plug this also).
2. REMOVE OLD PACKING AND LANTERN RING (if any) from stuffing box. Clean and inspect shaft and/or sleeves.
3. PLACE a Multi-lon packing ring in the bottom of the stuffing box, if Multi-lon packing is not available, any good quality non-asbestos packing material that will remain rigid enough to "sandwich" the G-PAC from escaping or migrating out of the stuffing box through the stoppers may be used, For a very small stuffing Box, use a Split Gasket (Lubricate the packing ring & inside diameter)
4. PACK stuffing box with G-PAC evenly and tightly (some packing glands can be used to gently tap G-PAC into place). Be careful not to damage shaft.
5. REPLACE packing gland follower and WRENCH - TIGHTEN nuts as much as possible to squeeze lubrication form G-PAC until it is showing around the edge of packing gland. G-PAC lubricant should not be washed off. Remove packing gland follower.
6. REPEAT step 4 & 5 four to five times to compact G-PAC into the stuffing Box.
7. PLACE another ring of Multi-lon packing at the top of the stuffing box. (Lubricate packing ring well).
8. REPLACE packing gland follower and re-tighten to FINGER-TIGHT.
9. RUN pump for 10 to 20 minutes, allowing material to set firmly and form a seal. During the break-in period a slight drip may occur but should cease in approximately 20 minutes. If it does not, add 1/4 turn to each nut. Pump may also run warm during break-in period but will normally cool down in 2 to 4 hours.
10. AFTER break-in some additonal material may be required, if so, remove packing gland follower and top packing ring then repeat steps '4 thru'8.
11. PUMP IS NOW READY FOR USE.

NOTE:

A. G-PAC is Zero-Leakage material. Do Not Use Seal Water With G-PAC
B. Be Sure To Loosen Nuts & Remove Gland follower to install top Multi-lon stopper ring before operating pump (Step-7)
C. Initially, when a stuffing Box is properly packed with G-PAC, gland will sit evenly on the top stopper ring and the top stopper ring will be slightly visible between stuffing Box opening & gland follower face bottom.
D. If slight leak should occur after extended use, tighten gland nuts 1/4 turn increments until it stops. Do not over-tighten with G-PAC.

Leaking Seals, Dripping Faucets and Other Leaks

WASTE WATER

WATER WASTE AT 40 LBS. PRESSURE

A 1/32" Leak Wastes	180 GALLONS In 24 Hours
A 1/16" Leak Wastes	690 GALLONS in 24 Hours
A 1/8" Leak Wastes	2,760 GALLONS in 24 Hours
A 1/4" Leak Wastes	11,030 GALLONS IN 24 Hours

Turn Waste Into Revenue With G-PAC

Provides ZERO Leakage ...
No Seal Water Required !

multi-Lon

SELF-LUBRICATING, NON-ASBESTOS BRAIDED PACKING

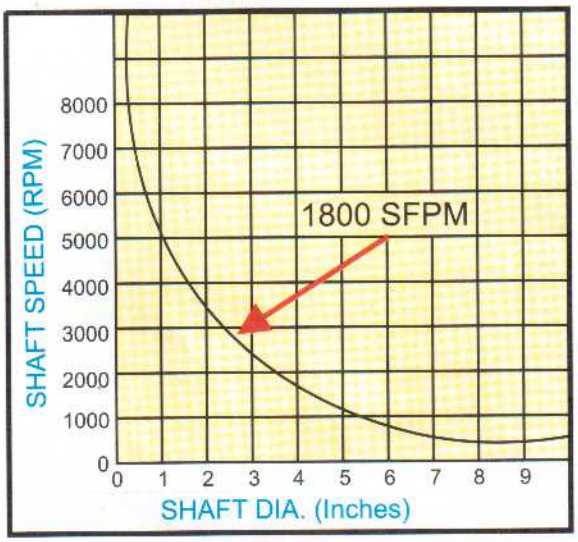
Specially formulated for use with G-PAC : GLAND PACKING COMPOUNDS and other applications (Centrifugal rotary, turbine and reciprocating pumps).

* NON-ASBESTOS ...clean high performance yarn is integrated PTFE, graphite and high temperature lubricant.
* HIGH THERMAL CONDUCTIVITY AND HEAT TRANSFER... withstands speeds upto 4,300 fpm.
* COST EFFICIENT ... 15 times longer service life than other packings, saves labour costs, fluid loss, downtime.
* ABRASION FREE ... low coefficient of friction.WITHSTANDS TEMPERATURES from -400°F (-240°C) to 550°F (288°C)
* CHEMICAL RESISTANCE ... inert over entire pH range 0-14 (few exceptions ... strong oxidizers in 0-2 pH area)
* WILL NOT HYDROLIZE, HARDEN, DRY-UP SHRINK OR SWELL ... holds up well in warm moist, environments.
* PLIABLE ... easy to install, forms easily around shafts.

SUPPLIED IN... Metre or Multiples of Metres / Kg,in any size
STANDARD SIZES : 6mm,8mm,10mm,12.5mm& 16mm square

G-PAC

GLAND PACKING COMPOUNDS



SHAFT SPEED LIMIT -VS- PUMP SHAFT DIAMETER USING G-PAC PUMP PACKING

TO CALCULATE

SFPM= 0-26 X D X RPM

where :

SFPM= shaft surface speed in feet per minute

d= shaft diameter in inches

SHAFT DIA. d"	MAXIMUM RPM
1"	7000
2"	3500
3"	2300
4"	1750
5"	1400
6"	1200

FLUID COMPATIBILITY TABLE FOR G-PAC PACKING COMPOUNDS

A-RECOMMENDED B-FAIR C-NOT RECOMMENDED

	G-100	G-300	G-500	
ACIDS	B	A	A	
AIR	A	A	A	
ALCOHOLS	C/B	A	A	
ALDEHYDES	C	A	A	
ALIPHATIC HYDROCBN	C	A	A	
AMIDES	B/A	B/A	A	
ANHYDRIDES	B/A	B/A	A	Although G-PAC Packing Compounds has been used in many diverse applications, it is in your best interest to immerse a test sample in the solution for twenty four hours prior to installing into the pump and / or valve.
AROMATIC HYDROCBN	C	A	A	
BASES	B/A	A	A	
BOILER WATER	A	A	A	
CORROSIVE SOLVENTS	A	A	A	
FEED WATER	A	A	A	
ESTERS	C	A	A	
FATS	A	A	A	
FATTY ACIDS	A	A	A	
FOOD BY PRODUCTS	A	A	A	Any new recommendations for the uses of G-PAC, Please write us at your convenience so we can add these products to our Chemical Compatibility Chart
GASES	A	A	A	
INORGANIC ACIDS	B	A	A	
NIROGEN DERIVATIVES	C	A	A	
OILS, MINERAL/VEG	A	A	A	
PHENOLS	C	A	A	
SALTS, SOLUTIONS	B/A	B/A	A	
SOLVENTS HYDROCBN	C	A	A	
STEAM	C	A	A	
SUFURIC GASES	C	A	A	
WATER, POTABLE	A	A	A	
DM WATER	A	A	A	