FILE NAME: Teadit (TEA)

DATE: 0000

DOC#: TEA002

DOCUMENT DESCRIPTION: Teadit Industry Sales Literature

TEADIT®

Fluid Sealing Products

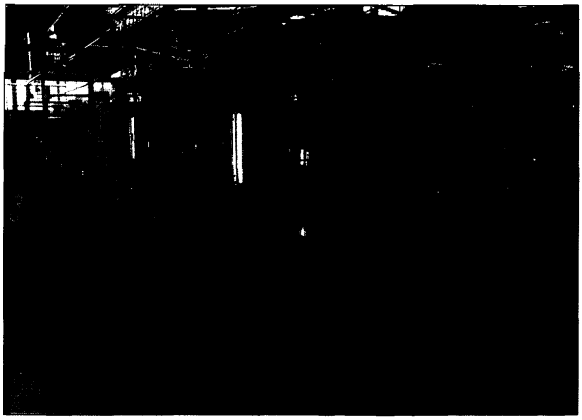


25,000 SQ. FT. HOUSTON WAREHOUSE

Teadit began its operations in 1988 in Houston, Texas. TEADIT's customers are the gasket/packings distributors and gasket die cutters located throughout the United States, Canada and Mexico



HOUSTON SALES OFFICE



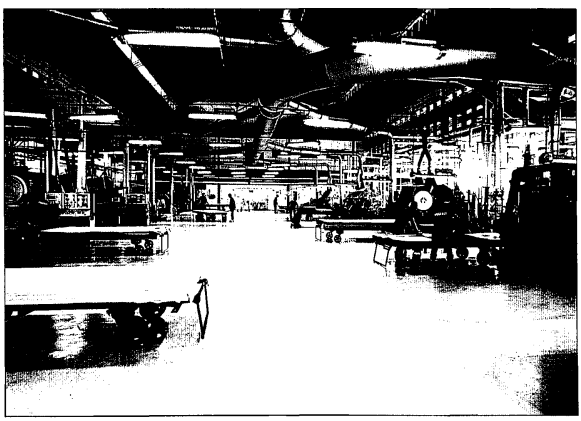
BRAIDED PACKING FACILITY

TEADIT's primary goal is to be easy to do business with. Quality product at good prices, shipping the same day or next—always reliable.

TEADIT EMPLOYS these resources:

- **On-the-floor inventory exceeding $2.0 million.**
- **Experienced customer-service staff with good product knowledge.**
- **Toll-free 800 phone number.**
- **Net distributor price list...no need to calculate your costs.**
- **Completely computerized accounting, inventory control and information retrieval system.**
- **Tele-Magic® software for customer service account management.**
- **Automated UPS and freight handling system...immediate rates and billing.**

TEADIT's experienced customer-service staff can give you prompt recommendations for the right TEADIT product to either solve a particular application problem or more than adequately replace any competitive product style. Please call TEADIT for help in solving your fluid sealing problems.



COMPRESSED SHEET FACILITY



TÜV CERT

CERTIFICATE

DAR

The TÜV-Zertifizierungsgemeinschaft e.V.
hereby certifies that
TEADIT Ges.m.b.H.
Salzburgerstr. 17
A-6382 Kirchdorf/Tirol

has established and applies
a quality system for
Stretched PTFE-flat-gasket, stuffingbox
packings, PTFE-envelope and -flat-gaskets

An audit was performed, Report No. WT5/4066
Proof has been furnished that the requirements according to
DIN ISO 9001/EN 29001

DNV

DET NORSKE VERITAS
QUALITY SYSTEM CERTIFICATE

Certificate No. QSC - 9790

This is to certify that
the Quality System
of

TEADIT

at
Rio de Janeiro, Bra

Has been found to conform to the Qua
ISO 9002, 198

This Certificate is valid for the following P
MANUFACTURING OF

Place and date:
Rotterdam, March 29th 1994

For the Accredited Unit:
DET NORSKE VERITAS INDUSTRY B.V.,
THE NETHERLANDS

André ter Weele
Management Representative:
DNV Certification

Accredited by
the Dutch Council
for Certification
Reg.No.24

Lack of fulfilment of conditions as set out in the Appendix

DET NORSKE VERITAS INDUSTRY B.V. Hoogenheistraat 7, 3079 DC Rotterdam, The

TEADIT

THE TEADIT
QUALITY COMMITMENT

To achieve 100% customer satisfaction by being the most efficient supplier of quality fluid sealing products at fair prices. To do this through cost-effective manufacturing, innovative product development, ample finished goods inventory, and efficient customer service... all by empowered employees, committed to continuous improvement.

All TEADIT products are manufactured under ISO 9000 Registration. TEADIT N.A., has been actively involved in Total Quality Management since 1991. Innovative TQM Programs have eliminated errors and provide continuous improvement.

COMPRESSED GASKET MATERIALS

NA-1100	NBR, Carbon Fiber	p. 5
NA-1000M	NBR, Aramid with Wire Mesh Reinforcement	p. 7
NA-1001	NBR, Aramid	p. 5
NA-1020	SBR, Aramid	p. 5
NA-1030	SBR, General Service	p. 5
NA-1500, 1550, 24C	PTFE Sheet and Tape; Virgin and Mechanical Grades	p. 7
3070	Woven PTFE Gasket Tape	p. 7
Flexible Graphite	Tape and Sheet	p. 8
24B	Expanded PTFE Gasket Tape, Joint Sealant	p. 9

COMPRESSION PACKINGS

NATURAL FIBER PACKINGS

2138	Marine Grade Ramie, Lubricated	p. 10
2177	Ramie with Graphite	p. 10
2421	Ramie with PTFE	p. 10

SYNTHETIC PACKINGS

2018	Synthetic with PTFE, Dry	p. 11
2019	Synthetic with PTFE, Lubricated	p. 11
2255	Synthetic with Graphite	p. 11

PTFE PACKINGS

2005	PTFE Filament, Dry	p. 12
2006S	PTFE Filament, Lubricated	p. 12
2006 FDA	PTFE Filament, Lubricated, FDA Approved	p. 12
24A	Expanded PTFE Valve Stem Packing	p. 12

EG2 PACKINGS (see description of EG2, bottom pg. 13)

2007	EG2 Filament	p. 13
2017	EG2 Filament with Aramid Corners	p. 13
2070	EGK (EG2 Filament with Aramid Core, each strand of yarn)	p. 13

ARAMID PACKINGS

2003	PTFE with Aramid Corners	p. 14
2004	Aramid with PTFE Suspensoid	p. 14
2044	Spun Aramid with PTFE Suspensoid	p. 14

CARBON, GRAPHITE AND HIGH TEMPERATURE VALVE STEM PACKINGS

2000	Flexible Graphite	p. 15
2001	Graphite Fiber	p. 15
2002	Carbon Fiber with Graphite Particles	p. 15
2214	High Temperature/High Pressure Valve Stem	p. 15

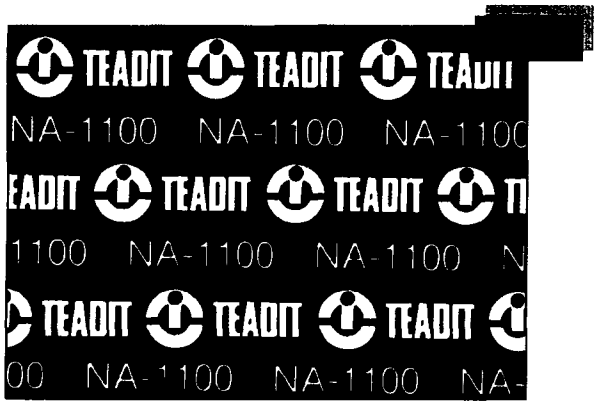
SPIRAL WOUND GASKETS

p. 17, 18

TABLES AND GUIDES

Gasket Sheet Properties ..... p. 6
Chemical Resistance Table/Gasket Sheet Product Data ..... p. 6
Yields, Compression Packings (Ft./Lb.) ..... p. 16
RPM/FPM Conversion Guide, Compression Packings ..... p. 16
Manufacturing Tolerances, Compression Packings ..... p. 16

Properties and application parameters shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. Failure to select proper sealing products could result in property damage and/or serious personal injury. Specifications are subject to change without notice; this edition cancels all previous issues.



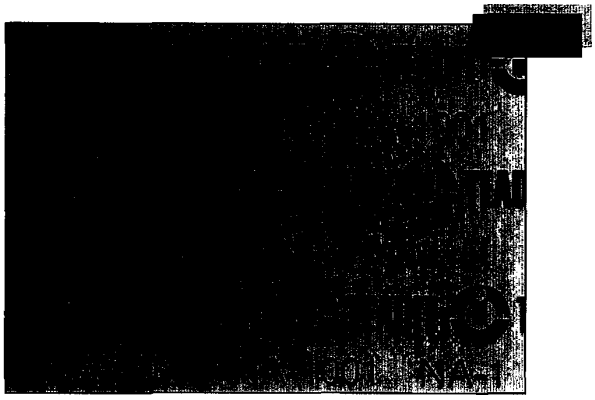
NBR, CARBON FIBER SHEET

Color: Black

NA1100 is manufactured from carbon fibers and graphite, bonded with Nitrile Rubber.

Service: For applications up to 900° F. This sheet enables plants to use only one gasket material and avoid the confusion of needing several different sheets or gasket styles in the plant. This sheet cuts very clean and easily. NA1100 is suitable for sealing hot oils, fuels, coolants, solvents, gases, water and steam.

Max Temperature: 900° F (480° C)
Max Pressure: 2300 psi
ASTM F104-F713130-M5



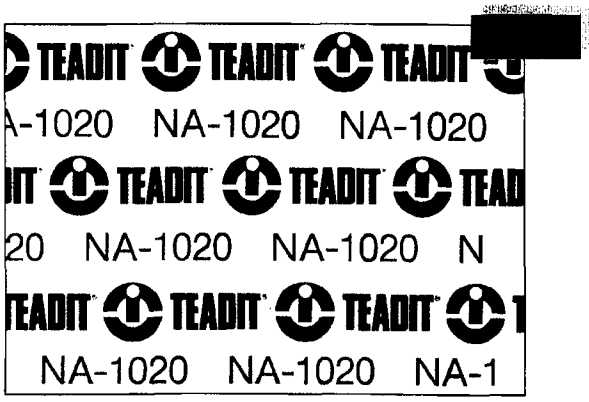
NBR, ARAMID FIBER

Color: Green or White

NA-1001 gasketing is a non-asbestos sheet material formulated for services in most static sealing applications as a universal replacement gasket. NA-1001 is manufactured through the hot calender process under rigorous quality control standards. Its fiber content is aramid, bound by nitrile rubber (NBR).

Services: NA-1001 is suitable against air, water, brine, steam, organic and weak inorganic acids, concentrated and diluted alkalies, chemicals, petroleum and petroleum derivatives, synthetic oils, animal fats, vegetable oils, aromatic, aliphatic and chlorinated solvents and refrigerants. Specific use is steam.

Max Temperature: 750° F (380° C)
Max Pressure: 1600 psi
ASTM F104-712130-M4



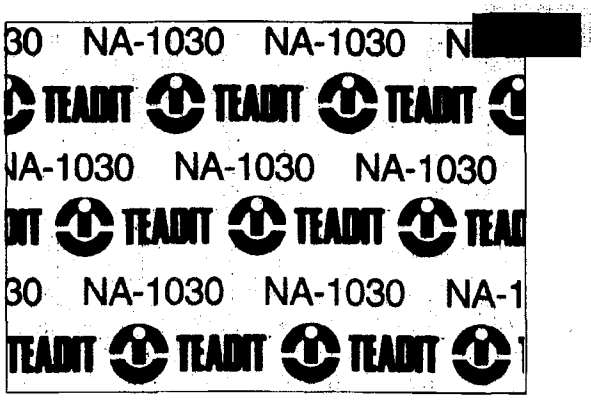
SBR, ARAMID FIBER

Color: White

NA-1020 is a high quality general service sheet packing with excellent sealability and creep relaxation characteristics. It is especially suitable for steam services. Manufactured by the hot calender process under rigorous quality standards using aramid fibers bonded with SBR rubber.

Service: This material is suitable for sealing gases, water, brine, steam, organic and weak inorganic acids, diluted and concentrated alkalies, oxygenated solvents and chemical products in general.

Max Temperature: 720° F (380° C)
Max Pressure: 1000 psi
ASTM F104-F712241-M5



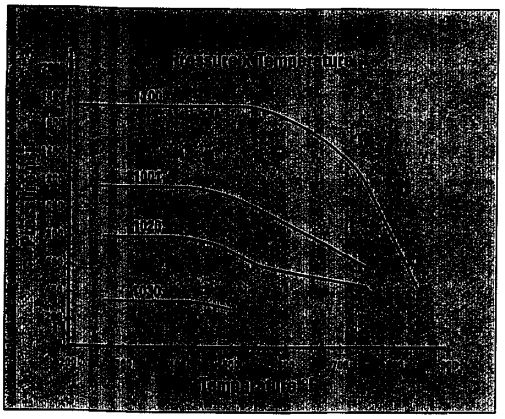
SBR, CELLULOSE FIBER

Color: Blue

A general service sheet for applications up to 450°.

Service: This material is suitable for sealing gases, water, brine, steam, organic and weak inorganic acids, diluted and concentrated alkalies, oxygenated solvents and chemical products in general.

Max Temperature: 450° F (230° C)
Max Pressure: 300 psi
ASTM F104-F712440-M4



PRESSURE X TEMPERATURE CURVE

ME 286/0 Test Procedure

The purpose of this TEADIT test is to determine the maximum pressure a sheet material can withstand at various temperatures. It is normal for the pressure capability to decrease as the temperature is increased.

Test Parameters are as follows:

Fluid:	Nitrogen Gas
Bolt Torque:	200 ft-lbs.
Gasket Load:	3050 psi
Gasket Size:	3.43" x 6.19" (4" 2500 psi ring gasket)
Allowable Leakage Criteria:	20 psi decrease in one hour

The test is begun at 130° C (266° F) and a maximum pressure of 2600 psi. If leakage occurs (20 psi or more per hour), the pressure is lowered until leakage does not exceed 20 psi/hr. Record the pressure determinant for 130°C, then repeat the procedure at 300°C (572°) and 450°C (842°F).

These points are plotted on a graph to give the PXT curve for the material.

PRODUCT DATA FOR NON-ASBESTOS GASKET MATERIALS

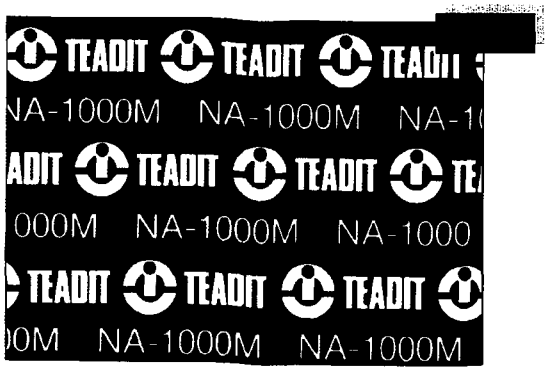
ASTM	ASTM Method	NA 1100	NA 1000M	NA 1001	NA 1020	NA 1030	NA 1076
Density, g/cm³	--	1.7	2.18	1.83	1.80	1.80	1.81
% Ignition Loss @ 1472° F	F-495	38	32	29	32	35	35
Tensile Strength, across grain psi	F-152	1900	3500	1900	1700	1600	1750
% Compressibility @ 5000psi	F-36A	15	15	9	16	8	15
% Recovery, Minimum	F-36A	56	50	55	50	60	39
Sealability (ml/hr. Leakage) @ 2000 psi gasket load	F-37A	0.5	1.1	0.6	0.5	0.5	1.1
Creep Relaxation @ 212° F, %	F-38	23	43	31	32	21	29

RESISTANCE AFTER 5 HRS. IMMERSION:

ASTM No. 3 Oil at 300° F							
Thickness Increase. %	F-146	8	9	5	13	24	13
Weight Increase, %	F-146	16	13	9	21	19	17
ASTM Fuel B @ 73° F							
Thickness Increase, %	F-146	9	11	5	11	17	10
Weight Increase, %	F-146	12	10	8	14	11	13

CHEMICAL RESISTANCE NON-ASBESTOS GASKET MATERIALS

STYLE	Mild inorganic acids	Mild organic acids	Strong inorganic acids	Strong organic acids	Concentrated alkalies	Diluted alkalies	Water	Air	Industrial Gases	Animal oils	Synthetic oils	Vegetable oils	Petroleum and Derivatives	General chemicals	Aliphatic solvents	Aromatic solvents	Chlorinated solvents	Oxygenated solvents	Brine	Neutral solutions	Refrigerants	Saturated steam	Superheated steam
NA-1100	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NA-1000M	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
NA-1001	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
NA-1020	•	•			•	•	•	•	•					•					•	•		•	•
NA-1030	•	•			•	•	•	•	•					•					•	•		•	•



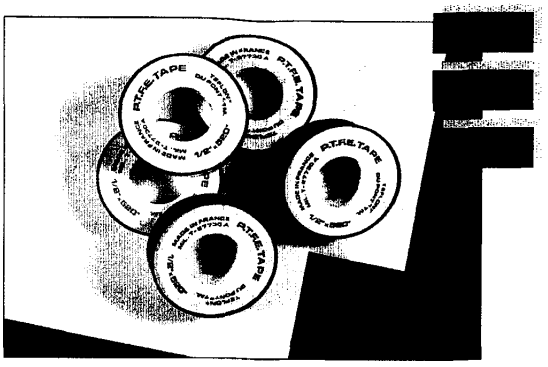
NBR, ARAMID FIBER WITH WIRE MESH

Color: Black, Graphited both sides

NA-1000M is an excellent sheet packing for use in gasket manufacturing to seal most fluids in industry. NA-1000M is manufactured through the hot calender process under rigorous quality control standards, with synthetic fibers, bound with nitrile rubber (NBR) and reinforced with wire. NA1000-M is very pliable and flexible. NA-1000M is ideally suited for applications with fluctuating temperatures and pressures.

Service: Air, water, brine, steam, organic and weak inorganic acids, concentrated and diluted alkalies, chemicals, petroleum and petroleum derivatives, synthetic oils, animal fats, vegetable oils, aromatic and aliphatic solvents, chlorinated solvents and cooling fluids.

Max Temperature: 720° F (380° C)
Max Pressure: 1550 psi
ASTM F104-F712121-M7



PTFE VIRGIN GRADE SHEET

PTFE MECHANICAL GRADE SHEET

PTFE THREAD SEAL TAPE

TEADIT offers sheet and tape manufactured from either virgin, filled or mechanical grade PTFE. Most products and sizes are stocked in Houston for off-the-shelf availability. TEADIT can also supply etched sheet for bonding applications and electrical insulating tapes to your specifications.

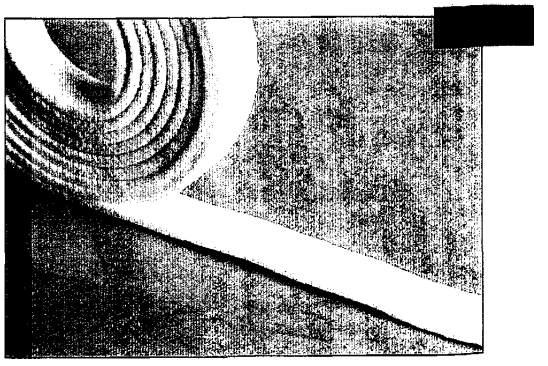
Sheet sizes: 48" wide by 48" long or continuous length
Thread Seal Tape: ¼" to 1" wide and lengths 260" to 1296"

VIRGIN SKIVED SHEET AND TAPE

Thickness (inches)	.005	.010	.015	.031	.062	.125	.188	.250
Tensile Strength (Min. PSI)	2800	2800	2800	2800	2800	2800	2800	2800
% Elongation (Minimum)	200	200	200	200	200	200	200	200
Dielectric Strength (VPM)	1000	800	680	680	500	500	500	500
Melting Point (F°)	620	620	620	620	620	620	620	620
Weight (lbs/ft²)	.07	.13	.19	.38	.75	1.5	2.2	3.0

Other thicknesses available upon request. TEADIT sheet meets the requirements of MIL-P-22241B, Type II, Grade B. Sheet is available on special order to meet other specifications.

Mechanical grade skived sheet is available in thicknesses from 0.015 to .250 in. Contact TEADIT for specifications.



WOVEN PTFE GASKET TAPE

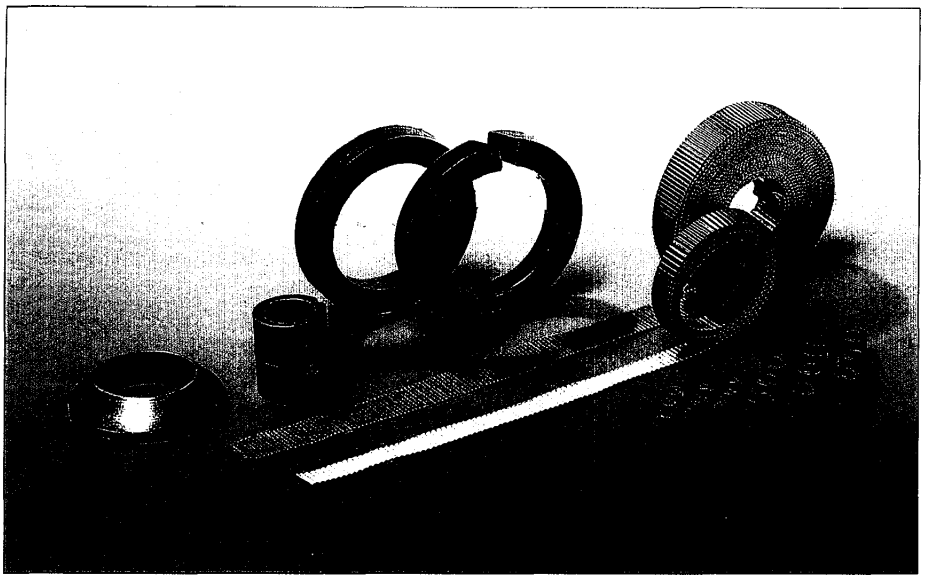
Service: An endless seal for any diameter flange, vessel, tank cover, ducts or glass equipment.

Construction: Braided of PTFE yarn, PTFE impregnated either with an inert lubricant or dry.

Service Limits: pH range: 0-14
Temperature: 500° F (260°C)
Pressure: vacuum to +350 psi

Sizes Available:

Thickness		Widths
⅛"	x	½", 1", 1 ¼", 1 ½"
¼"	x	1", 1 ¼", 1 ½", 2"



Flexible Graphite Gasket Tape (with adhesive backing), Packing Tape and Sheet are available from TEADIT.

Flexible Graphite is a high purity graphite product with no binder, fibers, lubricants or other additives. It seals successfully and retains its flexibility and resilience throughout a temperature range of -400° F to +900° F in an oxidizing atmosphere and up to 5400° in a reducing or inert media. Its effective pressure range is from vacuum to 10,000 psi.

PHYSICAL PROPERTIES (VALUES SHOWN ARE TYPICAL AND DO NOT REPRESENT CERTIFICATION.)

Bulk Density:	62 and 70 lbs/cu. ft. std.	Compressibility:	45-60%
Tensile Strength:	800 psi	Recovery:	20-40%
Ash Content:	4% max. (standard)	Melting Point:	Sublimates at 6600° F
Leachable Chlorides:	50 ppm max.	Temperature Range:	
Leachable Fluorides:	50 ppm max.	Inert or Reducing atmospheres:	to 5400° F
		Oxidizing atmospheres:	to 900° F

FLEXIBLE GRAPHITE SHEET

HOMOGENEOUS

STAINLESS STEEL FOIL REINFORCED

WIRE REINFORCED

TANGED STAINLESS STEEL REINFORCED

Flexible Graphite Sheets are available as homogeneous, laminated, or reinforced. All sheets can be easily cut using conventional steel rule dies, utility knives, or other simple gasket cutting equipment.

Standard Sizes: 39.4" x 39.4", 60" x 60"
Standard Thickness: 1/64", 1/32", 1/16", 1/8", 1/4"

FLEXIBLE GRAPHITE TAPE

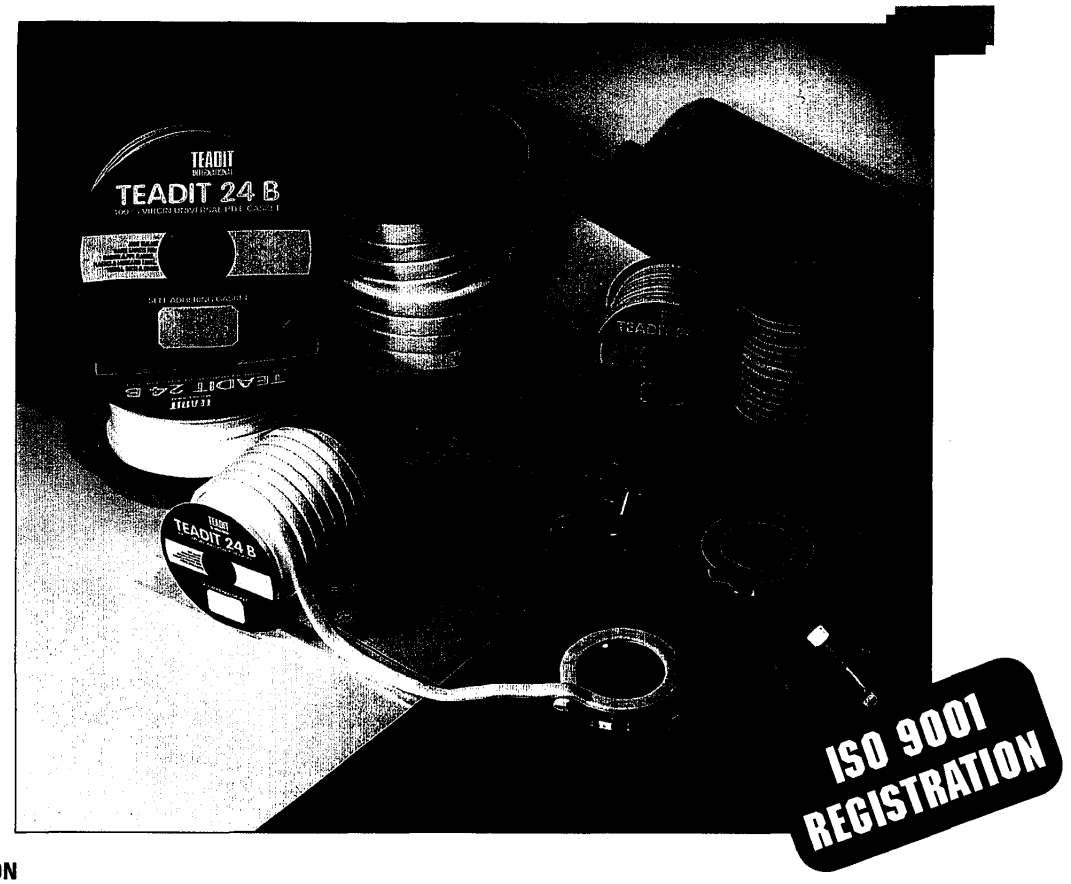
Available as tape packing or gasket tape in rolls up to 300 ft. long in standard widths of 1/4", 1/2", 3/4", 1", 1-1/4", 1-1/2"

Tape can be furnished smooth or corrugated; with or without adhesive backing.

(Tape Packing) universal stuffing box packing for pumps and valves. The packing is formed in place in the stuffing box from standard width tape.

(Gasket Tape) adhesive backed tape used as a form-in-place gasket, thread sealant, and for wrapping jacketed and other difficult-to-seal gaskets. Used to rejuvenate spiral wound gaskets in emergency situations.

TEADIT 24B EXPANDED PTFE GASKET TAPE



DESCRIPTION

TEADIT 24B is a multi-purpose gasket tape manufactured from 100% expanded PTFE fluorocarbon material, supplied as a continuous low density tape with a self-adhesive backing strip. It is soft and spongy, permitting it to conform easily to all surface irregularities and to compress to a thin ribbon under pressure.

APPLICATIONS

TEADIT 24B is recommended as a gasket tape in steel, glass lined, PVC and fiber glass pipe flanges, fume ducts, concrete lids, heat exchangers, fiberglass reinforced plastic vessels, pump housing flanges, compressor housing flanges, steam vessel flanges, manhole and manhole covers, ceramic joints, ventilation ducts, hydraulic and pneumatic systems, water supply systems, and turbine cases.

CHEMICAL RESISTANCE

Because TEADIT 24B is manufactured from 100%PTFE, it is an inert material which can be used in many applications against corrosive environments, except molten alkali metals and elemental fluorine. 24B will not contaminate media and can be used in food and drug equipment applications.

SERVICE LIMITS

pH range:	0-14
Temperature limits:	-400/+590° F
Pressure Limit:	2900 psi

PHYSICAL PROPERTIES:

Density:	39 lbs./cu. ft.3, 0.63g./cm³
Elongation:	120%
Matrix Tensile Strength:	4260 psi
Creep Relaxation (ASTM F38):	51%
Sealability (ASTM F 37A):	0.1 ml/hr.

SERVICE LIMITS

Flange Size:	TEADIT 24B Width
For Pipe Sizes Up to ½" dia.	⅛"
¾" to 1-½"	3⁄16"
2" to 4"	¼"
5" to 8"	⅜"
10" to 16"	½"
18" to 24"	⅝"
24" to 48"	¾"
48" and above	1"



MARINE GRADE RAMIE, LUBRICATED

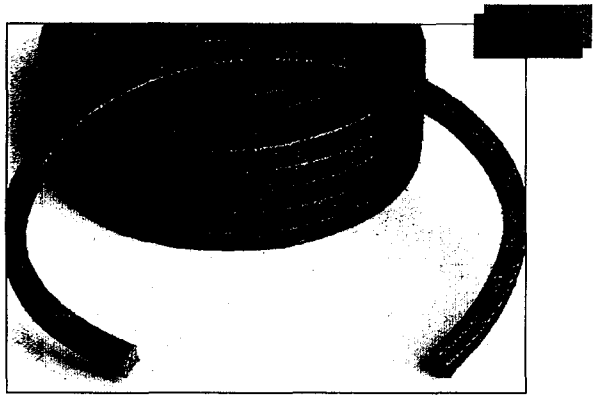
Service: A medium hard packing which is lubricated throughout. Extremely low frictional characteristics where minimal shaft wear is essential. Rot resistant and ideal for marine use, handling cold water, brine and cold oils. Use in stern tubes, rudder posts and tail shaft liners and industrial applications where minimal shaft scoring rates are required.

Construction: Square plaited construction, paraffin treated and mineral oil lubricated throughout.

Service Limits:

pH range:	6-8
Temperature:	200° F (94° C)
Shaft Speed:	1200 FPM

ISO 9002 REGISTRATION



RAMIE WITH GRAPHITE

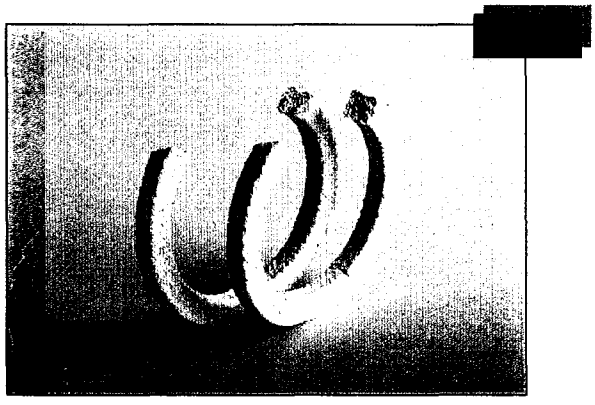
Service: A medium hard packing which is lubricated and graphited throughout. Extremely low frictional characteristics where minimum shaft wear is essential. Rot resistant and ideal for marine use, handling cold water, brine and cold oils.

Construction: Square plaited construction, graphite coated and mineral oil lubricated throughout.

Service Limits:

pH range:	6-8
Temperature:	200° F (94° C)
Shaft Speed:	1200 FPM

ISO 9002 REGISTRATION



RAMIE IMPREGNATED WITH PTFE

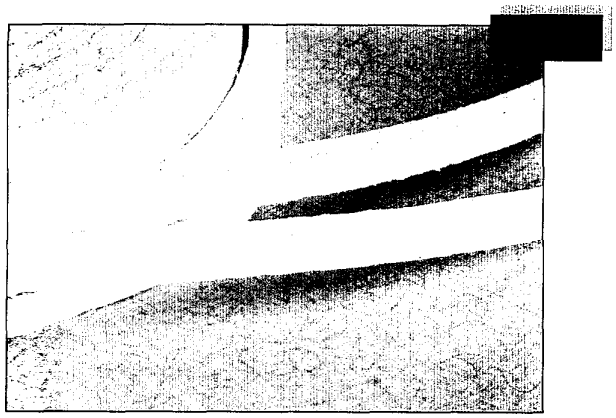
Service: Stern tube and rudder post stuffing boxes in the marine field. Other applications include certain rotary and reciprocating pumps and valve stems in the paper industry.

Construction: Highest quality ramie yarn with PTFE suspensoid in a square plait construction. Additional break-in lubricant is added to minimize shaft wear and to allow for expansion during the break-in period.

Service Limits:

pH range:	5-9
Temperature:	260° F (126° C)
Shaft Speed:	1575 FPM

ISO 9002 REGISTRATION



SYNTHETIC WITH PTFE, DRY

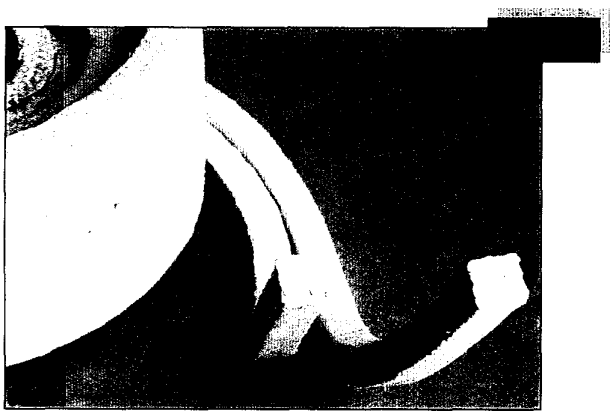
Service: General Service packing with no lubricant. Valve service and static gasket applications.

Construction: Interlock braid using carded synthetic yarns and thoroughly impregnated with PTFE suspensoid.

Service Limits:

pH range:	3-12
Temperature:	500° F (260° C)
Shaft Speed:	600 FPM

ISO 9002 REGISTRATION



SYNTHETIC WITH PTFE, LUBRICATED

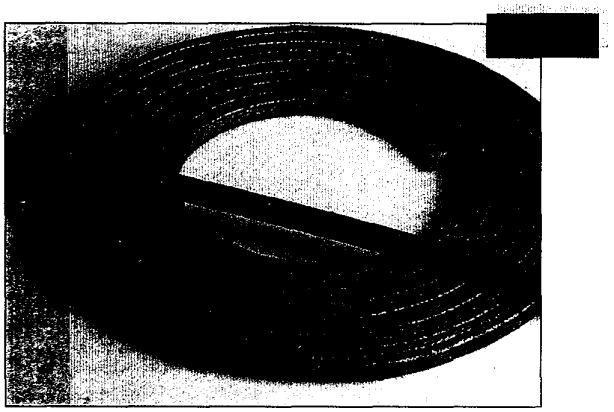
Service: Excellent multi-service packing for a wide variety of uses throughout a plant. Recommended for use in steam, water, solvents, oils, most chemicals, mild acids and alkalies.

Construction: Interlock braid using carded synthetic yarns thoroughly impregnated with PTFE suspensoid. The finished packing is again coated with PTFE dispersion and a break-in lubricant is added to reduce shaft wear and eliminate glazing at start-up.

Service Limits:

pH range:	3-12
Temperature:	500° F (260° C)
Shaft Speed:	2250 FPM

ISO 9002 REGISTRATION



SYNTHETIC WITH GRAPHITE

Service: A dense but flexible general service packing. It ensures an excellent seal against steam, brine, oil, mild acids, and alkalies. Centrifugal, oscillating and reciprocating shafts, valve plugs and steam.

Construction: Interlock braid using carded synthetic yarns thoroughly impregnated with petroleum based lubricants and graphite finished.

Service Limits:

pH range:	4-10
Temperature:	500° F (260° C)
Shaft Speed:	1575 FPM

ISO 9002 REGISTRATION