INVENTRO POLYMERS

ABILITY TO DEFINE

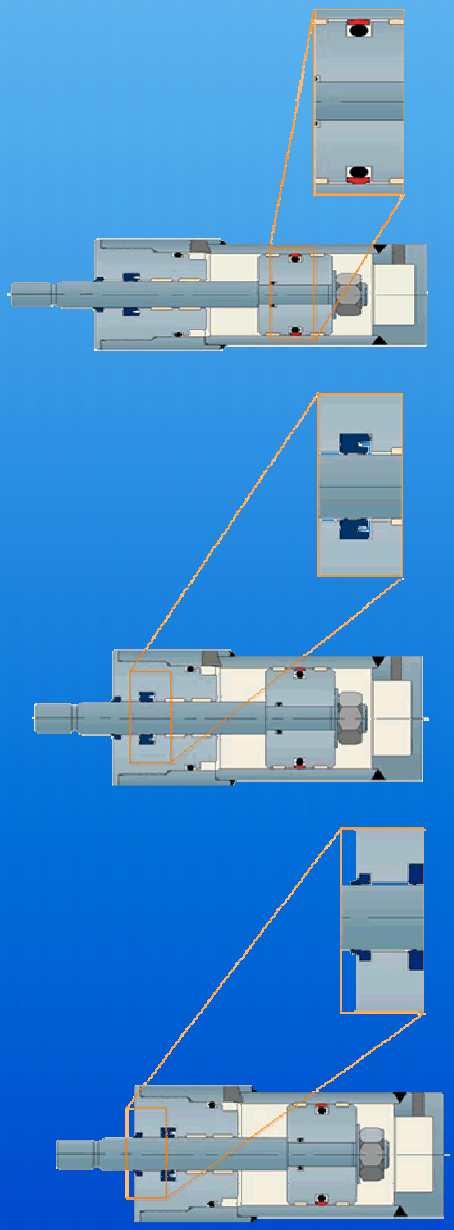
MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

We Can Manufacture Seals In Any Size With Any Material For Industry, Construction, Filling And Packaging, Chemical And Pharmaceutical Industries, Mechanical Engineering, Supply And Disposal, Power Transmission, Automotive Industry, Military Or Government Industries. Can Be Used For Maintenance And Repair On Original Equipment, Bored Out Cylinders, Foreign Equipment, Even Obsolete Equipment, We Can Make The Seals You Need From Your Equipment Specifications. All Parts Are Cut To Precise Specifications Using Our State-Of-The-Art Seal Cutting Machine.

We Can Reverse Engineer Or Prototype Any Seal Or Gasket. We Can Make Them To Fit Machines Made In Germany, Spain, Italy, India, France, China, Korea & More. We Make Them In Any Material, Any Size, Any Style.

❖ PISTON SEAL

PROFILE TYPE	MAX PRESSURE Bar	TEMP RANGE 'C	MAX SPEED m/sec	Double/ Single Acting
A	700	+100 - 30	0.5	D
B	600	+100 - 30	0.8	D
C	500	+100 - 30	0.8	D
D	350	+100 - 30	4.0	D
E	500	+100 - 30	0.5	D
F	700	+100 - 30	0.5	D
G	400	+100 - 30	0.5	D
H	200	+100 - 30	0.5	D
I	400	+110 - 45	1.0	S
J	400	+110 - 45	1.0	S
K	500	+120 - 40	1.5	D
L	350	+110 - 30	0.5	D
M	350	+110 - 40	1.0	D



REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

POLYURETHANE SEAL

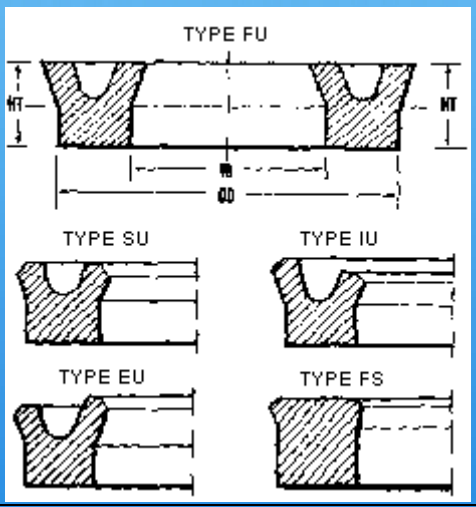
Our company specializes in the design and manufacture of polyurethane products- in particular we manufacture an extensive range of cylinder seals for hydraulic and pneumatic applications.

We have tooling for sugar mill press seals, hydraulic multi-platen presses used in the board industry and rubber press seals.

Polyurethane hydraulic sealing elements are widely used in cylinder applications for the following reasons:-

Excellent resistance to abrasion
Excellent cut resistance
Low compression set
Extremely high tensile strength
Resistance to virtually all hydraulic fluids
Cost benefits over multi-element seal
Pressure ratings up to 1300 kpa (20000 psi)
Temperature -45 deg to 80 deg Celcius

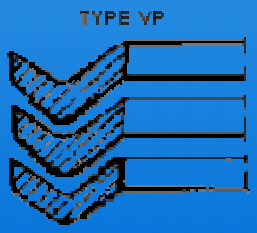
U-Seals



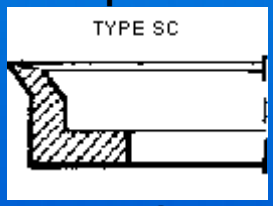
CUSTOM DESIGNED SEALS FOR SPECIFIC APPLICATIONS.

Because of our background in pressure sealing we offer a service to solve difficult sealing problems where special design considerations have to be taken into account.
Cushion seals for large stamping line presses are our specialty.

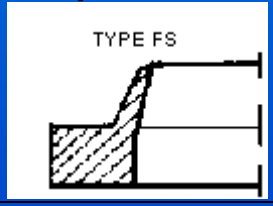
Chevron V-rings



Cupseals



Wiper Seals



REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

O-RINGS

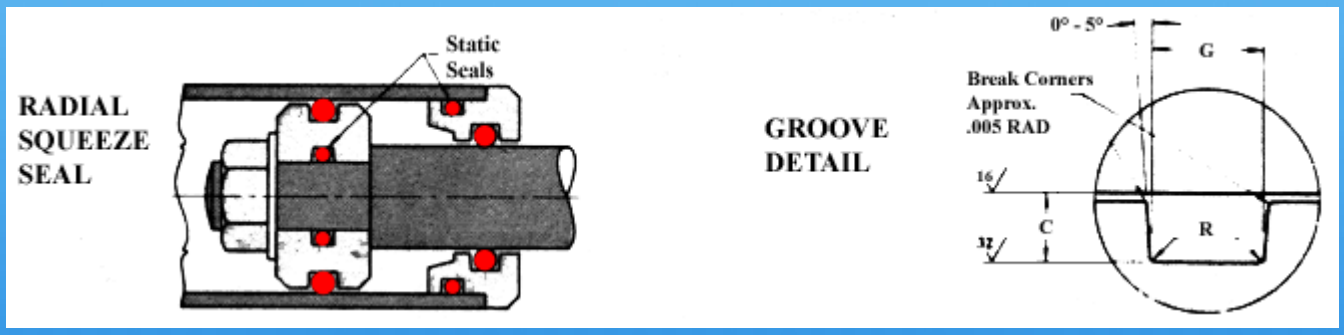
Dynamic Sealing Applications

O-rings are often used as rod or piston seals in hydraulic and pneumatic cylinders. The o-ring must be installed in a rectangular groove with the correct radial squeeze.

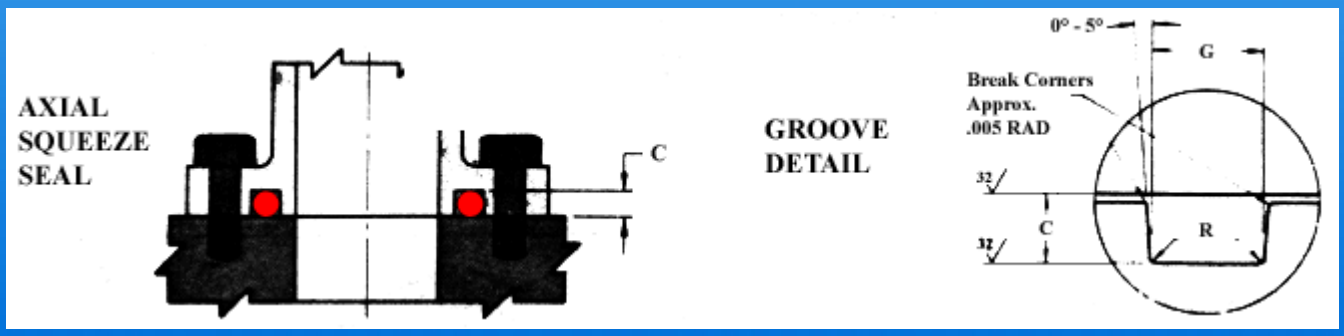
Static Sealing Applications

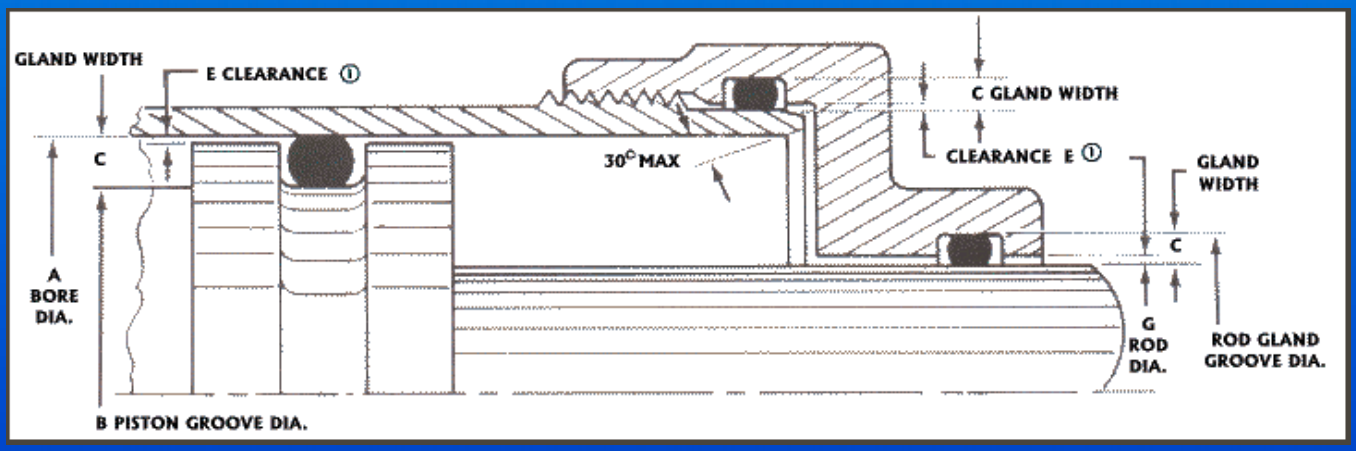
O-Rings may also be used as static seals, in flange connections, covers, pins, bolts, etc. Correct gland dimensions are important for effective sealing.

Industrial Reciprocating O-ring Glands



Industrial Static Seal O-Ring Glands





REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

Gaskets

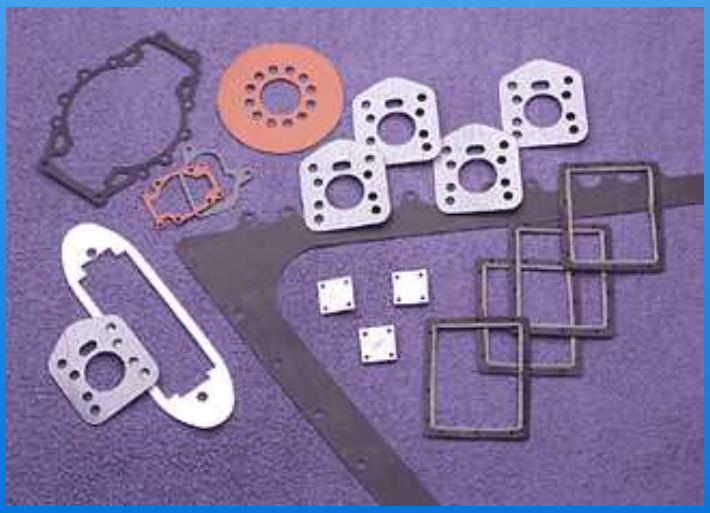
With our experience in sealing technology, Inventro Polymers has built a solid reputation for producing quality, cost effective products delivered in a timely manner worldwide. We can supply you with specially cut gaskets in any size with any material.

Materials include:

• Asbestos • Buna-N • Butyl • Chlorobutyl • C.I. Rubber • Copper • EPR • EPDM • Fiber • Fiberfrax • Fiberglass	• Hypalon • Metal • Neoprene • Nitrile	• Plastics (All Types) • PTFE • Rubber (All Types) • Silicone • Sponge • UHMW • Urethane • Viton®

Types of Gaskets:

• API Ring Joint
• Die-Cut Parts
• Lathe Cut
• Water-Jet Cut
• Metal Jacketed
• Molded
• Special
• Spiral Wound
• Stamping
• Sheet
• Strip



Gasketing Material Selection

The selection of a material is difficult due to the existence in the market of several choices. The four basic conditions, which must be observed on selecting material, are:

• Operating pressure.
• Bolt load.
• Resistance to chemical attack (corrosion)
• Operating temperature.

The corrosion resistance can be influenced by several factors, mainly:

• Concentration of the corrosive agent: a greater concentration does not necessarily make the fluid more corrosive.
• Temperature of the corrosive agent: usually high temperatures accelerate the corrosion.
• Dew point: the fluid excursion through the dew point, in the presence of sulfur and water frequently found in gases resulting from combustion, can lead to extremely corrosive condenses.

REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

RUBBER SHEET

Electric resistant rubber sheet as it is commonly called is so conceived as to provide human safety to workmen around electric substations against possible risk of leakage or short circuit.

RUBBERISED CORK SHEET

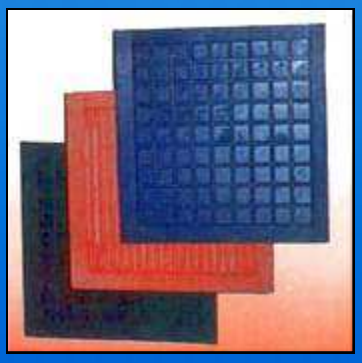
It combines the compressibility of cork with the properties of resilience as well as resistance to mechanical action of rubber. Rubber cork can be easily bent round sharp corners without cracking, They are strong, flexible and easy to cut and can be used for gaskets even with very narrow borders. The unique cellular structure compress under pressure and creates a reverse pressure on the restraining forces. This "fight back" is a primary requirement in any good gasket material.

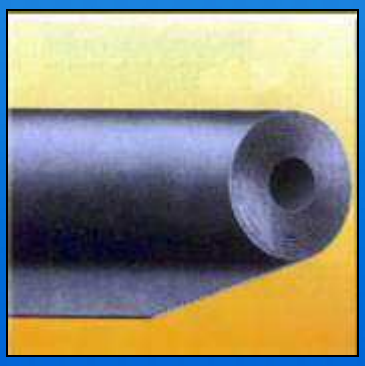
APPLICATION

It is extensively used as floor covering Power Houses, Electric Sub Stations, Heavy Industries. Indented to provide safety to workmen working around electric panels or electrically sensitive instrument/machines. Rubber mats are used as floor covering around electrical panels with rated voltage of 3300 (working) as a safeguard to the life and limb of the workmen due to possible leakage of current and short circuit.
Rubber mats are used in power generation plants, sub-stations, workshops, etc.

MATERIAL

NATURAL, NITRILE, EPDM, HIGH NITRILE, NEOPRENE, SILICON, POLYURETHANE, ETC.





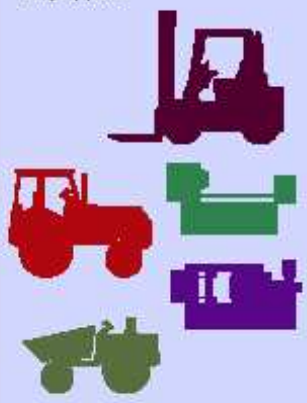
REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

OPERATING CONDITION

Cylinder Specification	Light Duty	Medium Duty	Heavy Duty
Pressure Max. Normal Working	350 bar 5000 psi 160 bar 2300 psi No Pressure Peaks	500 bar 7500 psi 250 bar 3600 psi Intermittent Pressure Peaks	700 bar 10000 psi 400 bar 6000 psi Regular Pressure Peaks
Design	Lower operating stresses. Rigid well aligned mounting, minimal side loading.	Steady operating stresses with intermittent high stress, some side loading.	Highly stressed for majority of its working life. Side loading common.
Condition of Fluid	Good system filtration no cylinder contamination likely.	Good system filtration but some cylinder contamination likely.	Contamination unavoidable from internal and external sources.
Working Environment	Clean, and inside a building. Operating temperature variations limited.	Mixture of indoor & outdoors but some protection from the weather.	Outdoors all the time or a dirty indoor area. Wide variations in temperature, both ambient & working. Difficult service conditions.
Usage	Irregular with short section of stroke at working pressures. Regular usage but at low pressure .	Regular usage with most of the stroke at working pressure.	Large amount of usage at high pressure with peaks throughout the stroke.
Typical Applications	Machine tools, lifting equipment, mechanical handling, injection moulding machines, control and robot equipment, agricultural machinery, packaging equipment, aircraft equipment & light duty tippers. 	Heavy duty lifting equipment, agricultural equipment, light duty off road vehicles, cranes & lifting platforms, heavy duty machine tool & injection moulding machines, some auxiliary mining machinery, aircraft equipment, presses, heavy duty tippers (telescopic), heavy duty mechanical handling. 	Foundry & metal fabrication plant, mining machinery, roof supports, heavy duty earth moving machinery, heavy duty off-road vehicles, heavy duty presses. 

Pressure, Speed, Temperature Range

From many years of application experience with sealing hydraulic equipment, supported by the results from an extensive test programme, we know that it is necessary to link the three main operating features of speed, pressure, and temperature to achieve a satisfactory seal performance. After carefully considering each product we are able to specify the maximum speed and pressure with a temperature range within which the seal will operate safely.

REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net

INVENTRO POLYMERS

ABILITY TO DEFINE

MANUFACTURER & EXPORTER OF: RUBBER, P.T.F.E (TEFLON) & ENGINEERING PLASTIC ITEMS

MATERIAL SELECTION GUIDE

Material Name	Material Group	Designation	Temperature °C	Temperature °F	Hardness	Colour	Rod	Piston	Wiper	Bearing	
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	93 IRHD	Black	H				
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	90 IRHD	Black			H		
Nitrile - high	Synthetic rubber	NBR	-10 +140	-14 +284	80 IRHD	Black	P	P	P		
Nitrile - low	Synthetic rubber	NBR	-45 +100	-45 +212	80 IRHD	Black			H		
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	78 IRHD	Black		H			M(1)
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	75 IRHD	Black	H	H			
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	73 IRHD	Black	H	H			
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	70 IRHD	Black	H	H			
Nitrile - low	Synthetic rubber	NBR	-45 +100	-45 +212	70 IRHD	Black	H	H			
Nitrile - medium 407	Synthetic rubber	NBR	-30 +120	-22 +250	70 IRHD	Black		H			
Nitrile - low 407 LT	Synthetic rubber	NBR	-56 +100	-70 +212	70 IRHD	Black		H			
Nitrile - medium	Synthetic rubber	NBR	-30 +120	-22 +250	65 IRHD	Black		H			
Hallprene - rubber/fabric	Composite	Cotton/NBR	-30 +120	-22 +250		Black	H	H			
Fluoroelastomer rubber/fabric	Composite	Cotton/FKM	-20 +150	-4 +302		Black	H	H			
Fluoroelastomer	Synthetic rubber	FKM	-20 +200	-4 +392	75 IRHD	Black	HP	HP	HP		
Hythane 181	TPE	EU	-45 +110	-50 +230	93 IRHD	Blue	HP	HP	HP		M
Hythane 282	TPE		-30 +125	-22 +255	93 IRHD	Purple	H	H	H		
Polyurethane	TPE	AU	-40 +100	-40 +212	94 IRHD	Dark blue			H		
Polyurethane	TPE	AU	-30 +100	-22 +212	93 IRHD	Dark blue		H	H		
Standard polyester elastomer	TPE		-40 +120	-40 +250	55 D	Red		H	H		
Hydrolysis stabilised polyester elastomer	TPE		-40 +120	-40 +250	55 D	Grey	H	H			M
Hydrolysis stabilised polyester elastomer	TPE		-40 +140	-40 +284	72 D	Red		H			M
Lubricated stabilised polyester elastomer	TPE		-40 +120	-40 +250	55 D	Dark brown		HP			
Acetal	Eng. plastic	POM	-45 +120	-50 +250	R 115	Orange	H	H		HP	M
PTFE glass filled	Eng. plastic	PTFE	-50 +200	-58 +392	60 D	White	HP	HP			
PTFE Glass / MoS_2 filled	Eng. plastic	PTFE	-50 +200	-58 +392	62 D	Grey	H	H		H	
PTFE Bronze filled	Eng. plastic	PTFE	-50 +200	-58 +392	72 D	Bronze	HP	HP		HP	
Hallite 506 polyester / polyester	Composite		-40 +120	-40 +250		Red				HP	M
Nylon 12	Eng. plastic	PA	-40 +120	-40 +250	72 D	Brown		H			
Nylon 6 / MoS_2	Eng. plastic	PA	-40 +120	-40 +250	R 115	Black	H	H			
Glass filled Nylon	Eng. plastic	PA	-40 +120	-40 +250	R 124	Black	H	H		H	

H - Hydraulic P - Pneumatic
M - Suitable for water based fluids
(1) Static applications only

REG OFFICE: A-701, Jeevan Saukhya, M.G X Rd No. 2, Bh. BMC Office, Kandivali –W, Mumbai- 400067, India.
FACTORY (RUBBER DIV.) Kandivali-E, Mumbai-101
FACTORY (PTFE DIV): Valiv, Vasai, Thane, Maharashtra,
Fax: 022- 2886 6033 , Mobile: 0 9323 101072 Website: www.inventro.net : E-mail: info@inventro.net