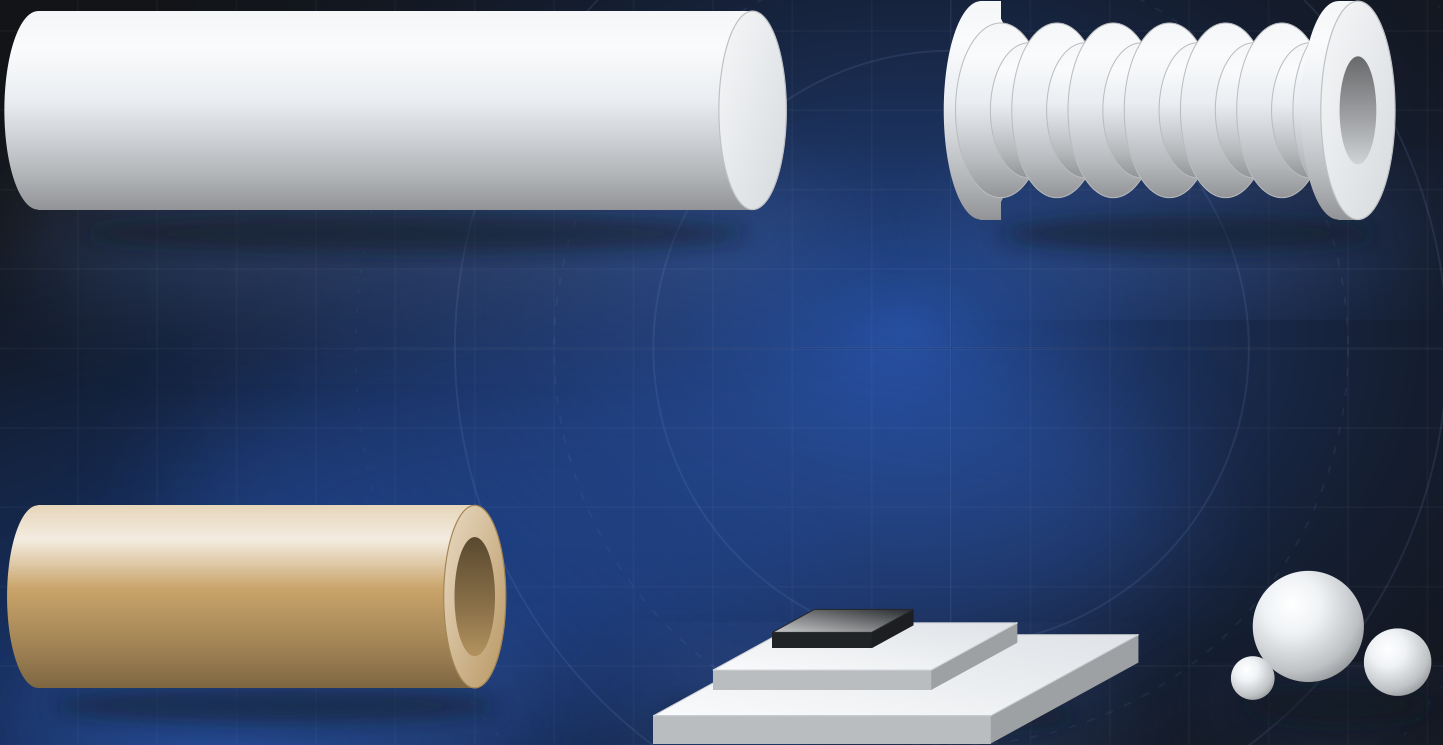


★ SPECIALISTS IN COMPRESSOR SPARES

Engineered PTFE & PEEK for the toughest environments.

Compressor spares · Rods · Tubes · Seals & Rings · Bellows · Gaskets · Bearings · Custom components



A brand of Corrosion Engineers

Pioneers in PTFE & PEEK manufacturing since 1963

AHMEDABAD · INDIA

Six decades of polymer know-how, one global brand.

Since 1963, **Corrosion Engineers** has manufactured PTFE and filled-PTFE products — and today PEEK — from Ahmedabad for India's most demanding industries — railways, defence, atomic energy, power, petrochemicals and heavy engineering.

Corvex is the new brand name for that expertise. Every rod, tube, ring, seal and bellows now ships as Corvex — the same materials, the same craftsmanship, the same people, presented for a global market by **Corrosion Engineers**.



Wherever parts slide, rotate or oscillate — or wherever corrosive chemicals, weather or extreme temperatures destroy other materials — there is a job for Corvex.

1963

Established in Ahmedabad

13

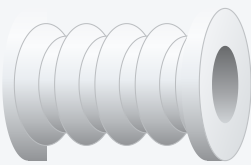
PTFE & PEEK grades

28

Industries served

50+

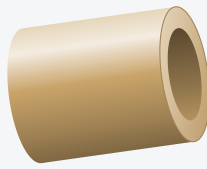
Institutional & PSU customers



Bellows



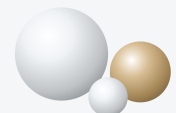
Piston rings



PEEK bushes



Back-up & O-rings



Balls

Made to drawing

Standard sizes from stock, plus non-standard sizes and filled compositions made to your specification.

Proven in the field

Registered vendor to Indian Railways, BHEL, ONGC, DAE, SAIL and the Ministry of Defence.

One partner

From raw rods and tubes to finished seals, bellows and bearing pads — machined in-house.

Corvex PTFE — the self-lubricating engineering material.

Corvex PTFE markedly improves the performance and service life of wear elements, seals and other key components in hydraulic, pneumatic and mechanical systems. In its virgin state it offers a coefficient of friction lower than graphite, outstanding temperature resistance, and corrosion and chemical resistance equal to or better than glass.

Compounded with inorganic fillers, it gains wear resistance comparable to many soft-metal alloys — superior to most self-lubricating materials. Freedom from stick-slip, excellent plastic memory and the ability to absorb contaminants make it the answer where hostile environments rule out lubricants or conventional parts.

-268 to +260 °C

Service temperature

0.05

Dynamic friction coefficient

55 kV/mm

Dielectric strength

<0.01 %

Water absorption

Eleven reasons engineers specify Corvex



Chemical inertness 01

Resists practically every industrial chemical.



High dielectric strength 02

~55 kV/mm; excellent insulator.



Heat resistance 03

Service from -268 °C to +260 °C.



Toughness & flexibility 04

Tough, with excellent plastic memory.



Low coefficient of friction 05

Lower than graphite; no stick-slip.



Noise damping 06

Quiet running in sliding assemblies.



Weather resistance 07

Unaffected by sun, rain and ageing.



Light weight 08

SG 2.14–2.18 — far lighter than metals.



High impact strength 09

Izod: no break at room temperature.



Long life 10

Years of service, reusable parts.



Self-lubricating 11

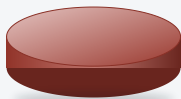
Runs dry — no oil, no contamination.

One material, many functions.

Standardise materials and simplify designs by eliminating lubrication altogether.

Moulding a better tomorrow — PTFE grades we offer.

Virgin PTFE is the starting point. Fillers tune it for load, wear, conductivity and heat. Every product in this catalogue can be supplied in the grade your application needs.

 Pure (virgin) Maximum chemical resistance and lowest friction. The all-round grade.	 Pure — electrical grade High-purity for insulators, bushes and electronic components.	 Carbon filled Higher compressive strength and hardness; good thermal conductivity.	 Glass filled Better wear and creep resistance with retained chemical resistance.	 Graphite filled Very low friction and wear; suits dry-running and soft mating surfaces.
 Bronze filled High wear resistance and heat dissipation for bearings and guide rings.	 MoS₂ + glass filled Harder, low-friction surface for dynamic seals and piston rings.	 Rulon-type (red) Bearing-grade compound for bushes, liners and guides.	 Turcite-type Low-friction slideway material for guide strips and wear bands.	

PTFE compounds at a glance Test methods: ASTM D792, D638, D2240, D621, D149

COMPOUND	DENSITY G/CM ³	TENSILE KGF/CM ²	ELONGATION %	HARDNESS SHORE D	DEFORMATION 24 H, 23 °C %	DIELECTRIC KV/MM
Virgin PTFE	2.1 – 2.2	210 – 375	250 – 400	52 – 58	10	22 – 24
Chemically modified	2.15 – 2.2	300 – 325	350 – 450	55 – 62	5	30 – 35
25% glass	2.22 – 2.25	125 – 200	200 – 300	58 – 63	11	11 – 12
15% glass + 5% MoS ₂	2.2 – 2.24	150 – 220	220 – 320	60 – 65	13	15 – 16
25% carbon / 23% carbon + 2% graphite	2.0 – 2.2	125 – 200	80 – 150	60 – 65	7	1 – 2
15% graphite	2.1 – 2.16	150 – 200	150 – 250	60 – 65	8	1 – 2
40% bronze	3.0 – 3.2	125 – 225	200 – 350	62 – 66	6	Conductive
40% bronze + 5% MoS ₂	3.0 – 3.2	125 – 225	200 – 350	62 – 66	6	Conductive
60% bronze	3.8 – 4.0	100 – 200	150 – 300	64 – 68	5	Conductive

All grades: melting point 335 °C, continuous service to +260 °C, water absorption ≈ 0 %. Typical average values for guidance only — not for design limits. Filled compositions are available for rods, tubes and machined components. Trade names are used only to describe equivalent compound types.

Corvex PEEK — strength where PTFE gives way.

PEEK (polyetheretherketone) keeps its strength, stiffness and shape at temperatures that soften most plastics. Where PTFE would creep or cold-flow under high load and pressure, Corvex PEEK holds its dimensions — making it the material of choice for compressor valve plates, high-pressure rings and precision structural parts.

Compressor valve plates

Poppets & seats

Piston & rider rings

Back-up rings

Bushes & bearings

Gears

Insulators

Pump wear rings

PEEK grades



Virgin PEEK

Tough, strong and chemically resistant. The standard grade for most parts.



Glass-filled PEEK

30% glass for higher stiffness, dimensional stability and heat deflection.



Carbon-filled PEEK

30% carbon fibre: highest strength and stiffness, better wear and thermal conductivity.



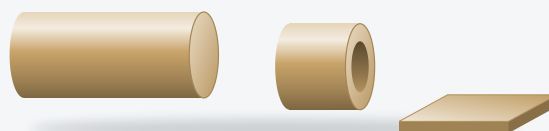
Bearing-grade PEEK

Carbon, graphite and PTFE modified for the lowest friction and wear in dry running.

Typical properties — virgin PEEK

Density	1.30 – 1.32 g/cm³
Tensile strength	95 – 110 N/mm²
Elongation at break	20 – 45 %
Flexural modulus	≈ 4,000 N/mm²
Hardness	Shore D 85 – 88
Melting point	343 °C
Continuous service temperature	up to 250 °C
Heat deflection, 1.8 N/mm²	≈ 152 °C (filled: ≈ 315 °C)
Dielectric strength	≈ 20 kV/mm

	PTFE	PEEK
Continuous service temperature	260 °C	250 °C
Tensile strength	20 – 35 N/mm²	95 – 110 N/mm²
Creep / cold flow under load	High	Very low
Friction	Lowest of any solid	Low (bearing grades lower)
Chemical resistance	Virtually universal	Excellent (not conc. sulphuric / nitric acid)
Best for	Seals, gaskets, bellows, low-load sliding	High-load rings, valve plates, structural parts



PEEK sheets, rods & bushes

Supplied in virgin PEEK and filled PEEK grades, in sizes as per customer needs.

PTFE rods & tubes.

Extruded and moulded stock shapes in virgin and filled PTFE, ready for machining.
Any size outside these ranges is made to order.

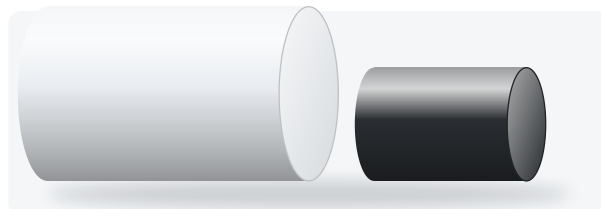


01

Extruded rods

Diameter	3 – 100 mm
Length	1000 & 2000 mm
Made to order	Custom length & diameter

Also in filled compounds — glass, carbon, graphite, bronze, MoS₂.



02

Moulded rods

Diameter 16 – 400 mm	Length 300 mm
Diameter 105 – 300 mm	Length 1000 mm
Made to order	Custom length & diameter

Also in filled compounds — glass, carbon, graphite, bronze, MoS₂.

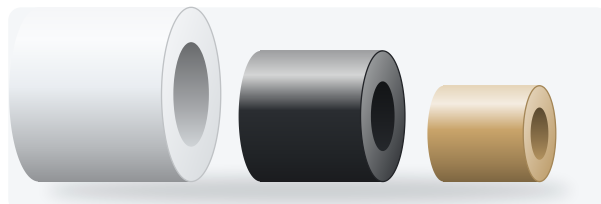


03

Paste-extruded tubes

OUTER DIAMETER (MM)	WALL (MM)
3.2, 4.8, 6.4, 8, 9.5, 11.1, 12.7, 14.3	0.8
3, 4, 6, 8, 10, 12, 14	1.0
6.35, 8, 9.5, 11.1, 12.5, 16, 19, 22.2, 25, 28	1.5

Custom length, OD and ID on request.



04

Moulded tubes & bushes

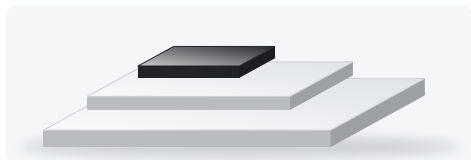
OD / ID range	12.5 – 1500 mm
Note	OD and ID are co-related
Made to order	Custom length, OD & ID

Also in filled compounds — glass, carbon, graphite, bronze, MoS₂.

Machined components to drawing

Valve seat rings, wedge rings, plug-valve sleeves, O-rings, washers, bushes, balls, insulators, pipe joints, guides, hydraulic seals — and every PTFE part for non-lubricated compressors — machined from any grade to your sample, specification or drawing.

PTFE sheets, pads & special-purpose grades.



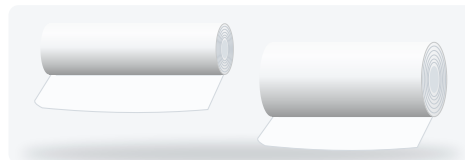
05

Moulded sheets

Thickness **3 – 100 mm**

Sizes **300², 450², 600², 900², 1000², 1200², 1500², 1000**
(mm) **× 2000**

Also in filled compounds — glass, carbon, graphite, bronze, MoS₂.



06

Skived sheets & film

Thickness **0.2 – 6 mm**

Width **300, 450, 600, 1000, 1200, 1500, 2000 mm**

Also in filled compounds — glass, carbon, graphite, bronze, MoS₂.



07

Modified PTFE (TFM-type)

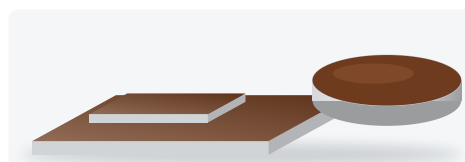
Chemically modified PTFE: lower creep, less porosity and smoother surfaces than virgin grade.

Rods **Ø 12 – 400 × 300 mm**

Moulded bushes **OD / ID 12.5 – 1500 mm**

Skived sheets **300 – 1500 wide · 0.2 – 6 mm**

Moulded sheets **300² – 1500², 1000 × 2000 · 8 – 100 mm**



08

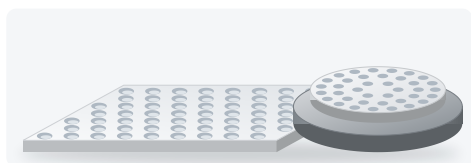
Chemically etched (bondable) PTFE

Etched on one or both sides so PTFE bonds to steel, wood, glass and plastics with standard adhesives. Only the surface changes (turns brown).

Forms **Sheets, film, rods, tubes, pads**

Uses **Linings for chutes, hoppers, tanks, rollers**

Storage **Keep wrapped, away from UV light**



09

Bridge & structural bearing pads

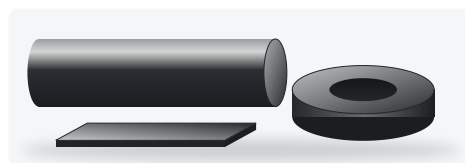
Plain or dimpled PTFE sliding pads between deck and pier — high load capacity, low friction, corrosion- and weather-proof, self-lubricating.

Multi-span bridges

Steel & concrete structures

Pipe supports

Tank & vessel bases



10

Anti-static PTFE

Conductive PTFE rods, spacers and sheets for lined pipes and fittings where static build-up must be dissipated.

Specific gravity **2.14 – 2.20**

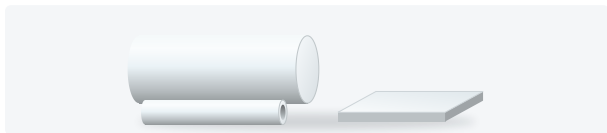
Tensile strength **20 – 30 MPa**

Hardness **Shore D 55 – 65**

Volume / surface resistivity **< 10⁶ Ω·cm / < 10⁶ Ω**

FEP, PFA, PCTFE & PVDF.

Beyond PTFE and PEEK, Corvex supplies the full family of melt-processable fluoropolymers in rods, sheets and tubing.



FEP

–196 to +200 °C

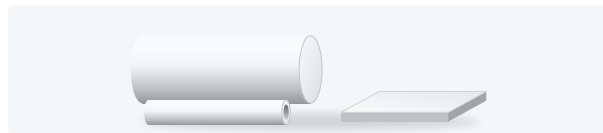
Transparent, non-stick, excellent electrical insulation.

Rods **Ø 6 – 135 mm · L ≤ 200 mm**

Sheets **3 – 60 mm · 120 × 200 to 645 × 560 mm**

Skived sheets **1 – 4 mm · 1000 / 1200 mm wide**

Tubing **ID 1 – 50 mm · wall 0.1 – 4 mm · L ≤ 6 m**



PFA

–200 to +260 °C

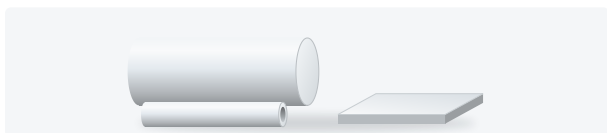
Melt-processable with PTFE-like heat and chemical resistance; UV-stable.

Rods **Ø 5 – 100 mm · L 1000 mm**

Sheets **3 – 60 mm · 120 × 200 to 645 × 560 mm**

Skived sheets **1 – 4 mm · 1000 / 1200 mm wide**

Tubing **OD 2 – 43 mm · wall 0.5 – 2.5 mm**



PCTFE

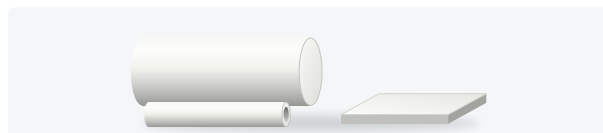
–196 to +120 °C

Hard, dimensionally stable, gas-tight — for cryogenic and high-pressure seals.

Rods **Ø 3 – 100 mm · L 1000 mm**

Sheets **3 – 60 mm · 120 × 200 to 500 × 500 mm**

Tubes **OD × ID 34 × 16 to 640 × 610 mm · L 25 – 170 mm**



PVDF

–30 to +150 °C

Strong, abrasion-resistant and flame-retardant — for tank linings, fittings and water treatment.

Rods **Ø 10 – 200 mm · L 1000 mm**

Sheets **2 – 50 mm · 1000 × 2000, 1500 × 3000 mm**

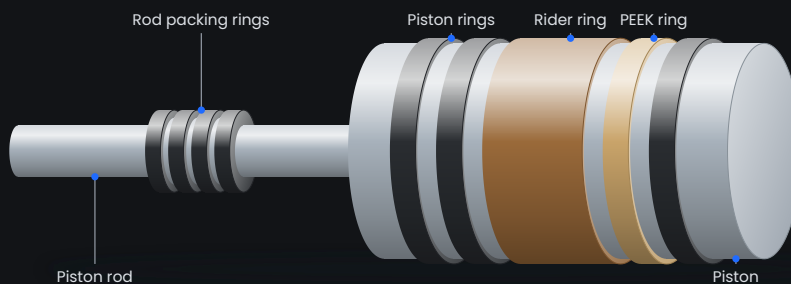
TYPICAL PROPERTY	UNIT	FEP	PFA	PCTFE	PVDF
Density	g/cm³	2.12 – 2.17	2.12 – 2.17	2.10 – 2.20	1.75 – 1.78
Tensile strength	MPa	18 – 25	25 – 35	38 – 48	42 – 55
Elongation at break	%	150 – 350	200 – 380	40 – 100	20 – 50
Hardness	Shore D	56	60	85	80
Melting point	°C	275	310	220	166
Dielectric strength	kV/mm	20 – 24	20	20 – 24	10

Typical values for guidance only; not to be used as specification limits. Custom sizes on request.

Compressor spares — where Corvex is strongest.

Compressor components are the heart of our business. We make PTFE, filled-PTFE and PEEK wear parts for reciprocating air, gas and refrigeration compressors — for OEMs, and for maintenance teams who need a reliable replacement for any make, made to sample or drawing.

Gas-specific & high-pressure specialists. For gas-specific and high-pressure compressors, we engineer the best solution using our **proprietary filler compositions**, delivering extraordinary efficiency and long service life with minimal wear.



Runs oil-free

Self-lubricating rings end oil carry-over and line contamination.

Protects the cylinder

PTFE absorbs stray particles instead of scoring the liner.

Any make, any size

Machined to your sample, drawing or OEM part number.

Proprietary compounds

In-house filler formulations matched to the gas, pressure and duty.



Piston rings

Carbon- and graphite-filled PTFE and PEEK rings for non-lubricated and lubricated cylinders.



Rider rings & wear bands

Bronze- and carbon-filled bands that carry the piston and protect the liner.



Packing rings

Segmental rod packing, with or without garter springs, packing cups and pressure breakers.



Valve plates & discs

PEEK and filled-PTFE valve plates, discs and seats for suction and delivery valves.



Guide rings

LP / HP guide rings, L-type pressure rings and twin pressure rings.



Oil wiper & scraper rings

Bronze scraper rings keep oil out of the compression chamber and off the rod.



Bushes & liners

Unloader bushes, sliding bushes, gear-set bushes and Rulon-type liners.



Valve guides

Valve guides, valve disc guides, wear strips and unloader piston rings.

Replacement spares for leading makes

Chicago Pneumatic Tool

Kirloskar Pneumatic Company

K.G. Khosla Compressors

Ingersoll Rand

Dresser-Rand

Brand names belong to their respective owners; Corvex supplies compatible replacement parts.



Compressor oil

Lubricating oils for reciprocating and screw compressors, supplied alongside your spares.

Trusted across 28 industries.

Aeronautical

- Insulating rings
- Sealing rings
- Spacers
- Thread seal tape

Battery manufacturers

- Ejection tips
- Plungers

Chemical plants

- Compressor components
- Crescent rings, QVF
- Envelope gaskets
- Gaskets
- Line bellows, QVF
- Rope gaskets
- Sheets
- Stirrer bellows
- Valve bellows
- Valve components
- Washers
- Thread seal tape

Civil engineering

- Bearing pads for bridges
- Pipeline sheets
- O-rings
- Packings

Compressor manufacturers & users

- Piston, rider & packing rings
- Valve plates, discs & guides
- Guide, wear & pressure rings
- Oil wiper & scraper rings
- Bushes, liners & wear strips
- Replacement spares for Chicago Pneumatic Tool, Kirloskar Pneumatic, K.G. Khosla, Ingersoll Rand & Dresser-Rand
- Compressor oil

Dairy

- Compressor components
- Pump seats for milk pumps
- Thread seal tape

Diesel engines

- Seals in special PTFE compositions

Duplicating machines

- PTFE coatings
- Rollers
- Fuser rollers
- Ejection guides
- Metal components
- Tapes
- Thread seal tape

Electrical & electronics

- Balls
- Cementable / etched bands
- Insulating bushes
- Carbon-filled bushes
- Compressor components
- Fixing covers
- Guide covers
- Nozzles
- O-rings
- Sealing rings
- Sheets
- Tapes
- Rods
- Relay plungers
- PTFE-coated thermistor bushes

Engineering

- Bearings, bushes & collars (pure & filled)
- O-rings
- PTFE coating of metal rollers
- Packings
- Rings & rods (pure & filled)
- Sheets
- Supporting rings
- Tubes / hollow bars
- Washers & gaskets
- V-seals

Fertilizer

- Bushes
- Compressor components
- O-rings
- Pump components
- Rods
- Seals & seal rings
- Sheets
- Valve components

Hydraulic

- Back-up rings
- Cup seals
- O-rings
- Rubber-PTFE coated O-rings
- Rod seals
- Sealing rings
- Shaft seals
- U-seals
- V-seals
- Washers
- Wiper seals

Instrumentation

- Bushes
- Compressor components
- Gaskets
- O-rings
- Packings
- Plates
- Rods
- Seals & seats
- Valve seats
- V-rings
- Washers
- PTFE-coated R.O. rings

Offshore

- Bearing pads
- Bushes
- Compressor components
- Gaskets
- Packing
- Rods
- Sheets
- Thread seal tape
- Greezee (PTFE-based)
- O-rings

Oxygen & industrial gas

- Bearing rings
- Compressor components
- Gaskets
- Gland packing rings
- Guide rings
- Greezee (fully fluorinated)
- Heat-sealing rings
- O-rings
- Packing with springs
- Expansion-engine piston rings
- Journal bearings
- Ring gaskets
- Thrust bearing pads

Petrochemical

- Bushes
- O-rings
- Packing
- Compressor components
- Valve components
- Fully fluorinated grease
- Sheets

Pharmaceutical

- Bushes
- Crescent rings, QVF
- Compressor parts
- Envelope gaskets
- Line bellows, QVF
- Pump seals
- Stirrer bellows
- Valve bellows

Pulp & paper

- Bushes
- Compressor components
- Thread seal tape
- Journal bearings

Pumps

- Bearings
- Glass-filled PTFE bushes
- Diaphragms

Railways

- Insulation sleeves & bushes
- Bearing pads for bogies, locomotives & bridges
- Sheets
- Tapes

Scientific instruments

- Bellow stirrers
- Crescent rings, QVF
- Discs
- Envelope gaskets
- Line bellows, QVF
- Valve bellows

Spare-parts dealers

- PTFE / filled PTFE
- Components for hydraulics, pumps & valves
- Electrical applications
- Tapes
- Thread seal tape

Steel plants

- Compressor components
- Gaskets
- Shaft seals
- Sheets
- Tape

Sugar

- Bushes
- Crescent rings, QVF
- Compressor components
- Line bellows, QVF
- Rods
- Sheets
- Tape

Tools

- Carbon-filled bushes

Tractors

- Hydraulic equipment components
- PTFE-coated O-rings
- Tape

Tyres

- Belts
- Piston rings for Bagomatic / bomb presses
- Tape

Valve manufacturers

- Balls
- Bushes
- Diaphragms
- Discs
- Gaskets
- O-rings
- Packing
- Seal rings
- Valve seats
- Washers
- Tape

In good company.

For more than sixty years, India's leading manufacturers, public-sector undertakings and defence establishments have relied on our PTFE components.

Asea Brown Boveri Ltd. NASIK	Alfa Laval Ltd. PUNE	Rane Brake Lining Ltd. HOSUR
Air Force Station CHANDIGARH	Atomic Energy ANUSHAKTINAGAR	Alembic Chemical Works VADODARA
Bharat Heavy Electricals BHOPAL · BENGALURU	Bharat Heavy Electricals Ltd. HYDERABAD	Chicago Pneumatic India Ltd. NASIK
Chittaranjan Locomotive Works CHITTARANJAN	Crompton Greaves Ltd. NASIK	Calico Polyester Fibre VADODARA
Daurala Sugar Works MEERUT	Dewrance Macneill & Co. Ltd. GHAZIABAD	Diamines & Chemicals Ltd. VADODARA
Electronics Corporation of India Ltd. KERALA	Escorts Tractors Ltd. FARIDABAD	Gujarat State Fertilizers Co. Ltd. VADODARA
Tata Iron & Steel Co. Ltd. TATANAGAR	Hindustan Aeronautics Ltd. HYDERABAD	Hindustan Aeronautics Ltd. LUCKNOW
Indian Petrochemicals Corp. Ltd. VADODARA	Calama Pumps Pvt. Ltd. AHMEDABAD	K.G. Khosla Compressors Ltd. FARIDABAD
Lakhanpal National Ltd. VADODARA	Modi Rubber Ltd. MODINAGAR	Synbiotics Ltd. VADODARA
Tata Engineering & Locomotive Co. Ltd. PUNE	Universal Oxygen Ltd. NEW DELHI	Veljan Hydrair Ltd. HYDERABAD
Western Railway MUMBAI	Oil & Natural Gas Commission DEHRADUN	Midco Pvt. Ltd. MUMBAI
TELCO JAMSHEDPUR	Central Railway MUMBAI	

Customer names as recorded in our reference list; some organisations have since been renamed.

Registered vendor to India's strategic sectors.

#	ORGANISATION	LOCATION	REGISTRATION NO.
01	Northern Railway	New Delhi	C - 0147
02	South Central Railway	Secunderabad	17590
03	Western Railway	Mumbai	59407
04	Bhilai Steel Plant	Bhilai	93125060
05	Naval Physical & Oceanographic Lab. (R&D Organisation)	Kochi	NPOL/Regn. CG/8990
06	Garden Reach Shipbuilders & Engineers Ltd.	Kolkata	11373
07	Hindustan Petroleum Corpn. Ltd.	Mumbai	051
08	Coromandel Fertilizer Corpn. Ltd.	Visakhapatnam	Regular supplier
09	Gujarat Heavy Chemicals Ltd.	Veraval	Regular supplier
10	Gujarat State Fertilizers Co. Ltd.	Sikka / Vadodara	Regular supplier
11	Gujarat Alkalies & Chemicals Ltd.	Vadodara	Regular supplier
12	Shree Ambuja Petrochemicals Ltd.	Medak	Regular supplier
13	Hyderabad Batteries Ltd.	Hyderabad	Regular supplier
14	Indian Cable Co. Ltd.	Jamshedpur	Regular supplier
15	National Thermal Power Corpn.	Jyotinagar	Regular supplier
16	Ministry of Defence — Combat Vehicles R&D Estt., Avadi	Chennai	Regular supplier
17	Central Railway	Mumbai	S-280 A 8807/c 0387
18	Ministry of Defence — Ordnance Factory	Bhandara	C-58
19	Integral Coach Factory	Chennai	C-114/413007
20	SAIL — Rourkela Steel Plant	Rourkela	Purchase/Regn/4833/2535
21	Oil & Natural Gas Corporation	Dehradun	MAT/PMC-78/1648/NSIC
22	ONGC (Import Substitution Group)	Dehradun	INDEG/Regn./5/25/F010
23	Essar Gujarat Ltd.	Hazira	W-C-007
24	Department of Atomic Energy	Mumbai	XII/GEN/22487/6321/401
25	Bharat Heavy Electricals Ltd.	Bhopal	C-4564
26	Directorate General of Quality Assurance, Ministry of Defence	Delhi	720/95-Grade SS-P-GR-II
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