



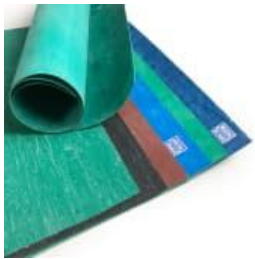
Full Gasket Sheet Catalogue

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1. Asbestos Gasket Sheet (Historical & Regulated Use)



Asbestos-containing gasket sheets were historically used for a wide range of industrial sealing applications due to good heat resistance and compressibility. Because of health and regulatory concerns, asbestos materials are subject to strict controls in many jurisdictions and have largely been replaced by engineered non- asbestos alternatives. When asbestos materials are still encountered (legacy equipment, specific allowed uses), handling must follow local regulations and workplace safety procedures.

Applications:

- Power generation (boilers, turbines) — historical primary user
- Petrochemical & refining — high-temp services
- Industrial steam systems and heat exchangers





Subtype	Typical Features	Typical Applications	Notes
Compressed Asbestos Gasket Sheet	Good high-temperature resistance, compressible	Older steam systems, industrial boilers (legacy)	Regulated — follow local asbestos handling rules
High- Temp Asbestos Gasket Sheet	Formulated for elevated temperature service	High- temperature flanges (legacy)	Use extreme caution; prefer graphite or ceramic alternatives
Oil Resisting Asbestos Rubber Sheet	Asbestos fibre with rubber binder for oil resistance	Oil seals and flanges (legacy)	Often replaced by NBR or HNBR rubber sheets in modern plants

2. Non-Asbestos Gasket Sheet



Modern non- asbestos gasket sheets are engineered from aramid fibres, mineral fillers, elastomeric binders (NBR, SBR), and other inorganic reinforcements. They are





designed to meet many of the performance properties of compressed asbestos while avoiding health risks.

Applications:

- Chemical processing (non-oxidizing chemicals)
- Oil & Gas midstream and downstream
- Power station auxiliaries (cooling, fuel lines)
- Water treatment and desalination
- General manufacturing & HVAC





Product Type	Typical Thickness (mm)	Service Temperature (°C)	Key Benefits / Typical Use
Compressed Non- Asbestos Gasket Sheet	0.5 – 3.0 (typical industrial grades)	-40 to +230 (typical)	General purpose flange gasketing; good oil and chemical resistance; available in aramid/NBR constructions
Non- Asbestos Jointing Gasket Sheets	0.4 – 2.5	Up to ~260 (depending on binder)	Sheet for cutting gaskets for pumps, valves, heat exchangers
Non- Asbestos Composite Sheet	varies by laminate	depends on layers (rubber/metal/aramid)	Tailored for specific fluids and flange conditions

3. PTFE Sheet (Polytetrafluoroethylene)



PTFE sheet products are widely used for their outstanding chemical resistance, low friction, and broad service temperature range. Variants include virgin (unfilled) PTFE, expanded PTFE (ePTFE), soft PTFE grades and antistatic PTFE.





Applications:

- Chemical processing — aggressive solvents & acids
- Food & beverage — hygiene & low contamination
- Pharmaceuticals — purity and cleanability
- Semiconductor — ultra-pure chemical delivery
- Oil & gas — corrosion resistant sealing in aggressive streams

Type	Typical Thickness (mm)	Service Temperature (°C)	Key Properties / Applications
Virgin PTFE Sheet	0.5 – 10	-200 to +260 (continuous service up to ~260°C)	Excellent chemical resistance; electrical insulation; bearings and chemical process gasketing
Expanded PTFE (ePTFE)	0.5 – 6	similar service range; improved conformability	Highly conformable; used where low bolt load or irregular flanges exist
Soft PTFE Sheet	0.3 – 3	soft, compressible PTFE variants for sealing	Used where tight clamping and chemical compatibility are required





Type	Typical Thickness (mm)	Service Temperature (°C)	Key Properties / Applications
Antistatic PTFE Sheet	0.5 – 6	PTFE with conductive additives	Used where charge dissipation is necessary (valves, semiconductor)

4. Flexible Graphite Sheet



Flexible (expanded) graphite sheets offer wide temperature capability, excellent chemical resistance and are commonly used for steam, high-temperature oil and corrosive media. Laminated grades with stainless steel inserts increase mechanical strength and blowout resistance.

Applications:

- Power generation — steam pipes, boilers, turbine auxiliaries
- Petrochemical & refining — high temperature process lines
- Automotive exhaust systems — seals and thermal gasketing





- Chemical processing — non-oxidizing chemical services
- Heat exchangers & furnaces — high temp sealing

Type	Typical Thickness (mm)	Service Temperature (°C)	Key Properties / Applications
Expanded Graphite Sheet	1.0 / 1.5 / 2.0 / 3.0 (common stocked sizes)	-250 to +450 / higher in inert atmospheres	High temperature, steam, corrosive media; excellent thermal conductivity
Graphite Laminate Sheet	0.5 – 3.0 (with metal foils)	up to ~450°C in many grades	Metal inserts improve handling and blow- out resistance
Graphite Sheet with Wire Mesh	0.5 – 3.0	up to ~450°C	Reinforced gasket material for higher mechanical loads; improved stability

5. Rubber Sheet (Elastomers)



Rubber sheet materials include Nitrile (NBR), EPDM, Neoprene (CR), HNBR, and





conductive formulations. Each elastomer has defined strengths: oil resistance (NBR/HNBR), weather/ozone resistance (EPDM), flame resistance (Neoprene), and high- temperature oil resistance (HNBR).

Applications:

- Automotive — seals, gaskets, vibration mounts
- Oil & Gas — hydrocarbon-resistant NBR gaskets
- Water & Wastewater — EPDM linings and seals
- Food & Beverage & Pharma — FDA-grade silicone sheets
- Mining & Construction — abrasion-resistant SBR & reinforced sheets

Material	Typical Hardness (Shore A)	Service Temp Range (°C)	Typical Uses
Nitrile (NBR) Sheets	60 – 90 Shore A	-30 to +110	Oil- resistant seals, gaskets, fuel systems
EPDM Rubber	60 – 90 Shore A	-50 to +120	Weathering, steam, hot water, some





Material	Typical Hardness (Shore A)	Service Temp Range (°C)	Typical Uses
Sheet Neoprene (CR) Rubber Sheet	60 – 90 Shore A	-30 to +120	chemicals General purpose, some chemical resistance, weathering
HNBR Rubber Sheet	60 – 90 Shore A	-30 to +150	High- temperature oil and chemical resistance; automotive and oilfield applications
Conductive Rubber Sheet	varies	application dependent	EMI/RFI shielding; dissipative gasketing

6. Beater Sheet / Paper (Cylinder & Gasket Papers)



Beater sheet papers are used in cylinder head gasket manufacturing and other soft gasket applications. Modern beater sheets are available in non- asbestos, synthetic fibre and (historically) asbestos formulations. They are often laminated with metal for





composite gaskets.

Applications:

- General industrial piping (low-to-medium pressure)
- Automotive components (gasket liners, insulation)
- Electrical & electronics (insulation boards, terminal pads)
- Pumps & valves (non-critical services)
- Appliances & HVAC (cushioning, sealing)

Type	Typical Form	Key Applications	Notes
Non- Asbestos Beater Sheet	sheets/rolls	Cylinder head gaskets, composite gasket core	Made from aramid/cellulose blends with latex binders
Synthetic Fibre Beater Sheet	sheets	Automotive gaskets, oil pans	Engineered for consistency and controlled compressibility
Asbestos Beater Sheet Paper	sheets (legacy)	Older manufacturing processes (legacy)	Subject to strict regulation; largely phased out





7. Selection Guide & Installation

Material selection depends on: operating temperature and pressure, chemical compatibility, flange surface condition, available bolt load, and regulatory constraints. General guidance:

- Use graphite laminate or flexible graphite for high-temperature steam and corrosive media.
- Use PTFE for broad chemical resistance when temperatures are within PTFE limits.
- Use NBR/HNBR for oil and fuel systems.

Installation best practices: clean flange faces, verify bolt torque sequence, use recommended gasket thickness, and avoid over-torquing to prevent gasket crushing.

8. Quality, Standards & Testing

Common standards and test methods referenced in the gasket industry include ASTM classification and test methods for gasket materials (e.g., ASTM F104 classification of nonmetallic





gasket materials and ASTM F37/F2378 test methods related to sealability and leakage). Manufacturers also publish product data sheets with measured values for compressibility, recovery, tensile strength and specific leak rate.

9. Packaging, Storage & Ordering

Typical packaging: flat sheets stacked on pallets with protective film; rolls for flexible graphite and PTFE. Storage: keep dry, away from direct sunlight and corrosive atmospheres. Ordering information: specify material type, thickness, sheet size (e.g., 1000 x 1000 mm, 1500 x 1500 mm), and any metal inserts or surface finish requirements.

