PTFE Gaskets — Common Sizes / Applications

1) Virgin (unfilled) PTFE gaskets / sheet

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Sheet thickness (mm)	0.5, 1.0, 1.5, 2.0, 3.0, 4, 5, 6, 8, 10 (stock through 10–20 mm by some suppliers)	Thin (0.5–1.5 mm): sanitary fittings, small flange gaskets, chemical valve seats. 1.5–4 mm: standard flanges in corrosive service (low/medium pressure). ≥5 mm: thick machined gaskets, where flange gaps require more bulk.
Sheet formats	Panels: 1000×1000, 1200×1200, 1500×1500 mm; cut-to-size and rolls for thin film	Chemical industry flange gaskets, sanitary plate gaskets, PTFE liners.
Pre-cut rings / gaskets	Custom CNC / die-cut to ASME/DIN/JIS flange patterns; small ring IDs for valves and fittings	Chemical plants, food & pharma processing.
Typical industries	Chemical processing, pharmaceutical, semiconductor, food & beverage, cryogenic systems.	

2) Filled PTFE (carbon, glass, graphite, bronze, MoS_2 , glass-fiber etc.)

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Sheet thickness (mm)	0.5 – 10 mm commonly stocked; 1 – 6 mm typical for gasket cutting	1 – 3 mm: general flanges where lower creep desired; 3 – 6 mm: higher bolt load flanges, gasket for compressors/pumps where reduced cold flow is required.
Common filler selections by application	Carbon/graphite: chemical service with improved strength; Bronze: bearings & high compressive loads; Glass/Glass-fibre: improved dimensional stability; MoS_2: low friction dynamic seals	Choose filler by tradeoffs: chemical resistance vs mechanical improvement.
Sheet formats	Same as virgin PTFE — panels and cut gaskets	Chemical process flanges that require both inertness and improved mechanical stability.

3) Expanded PTFE (ePTFE / porous PTFE gaskets, structured PTFE)

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Sheet / tape thickness (mm)	Thin foils 0.1 – 1.5 mm common (0.2, 0.5, 1.0 mm typical); thicker structured sheets up to ~4 mm in specialty grades	Thin jackets for sanitary fittings (0.5 mm); thicker structured pads for vacuum & cryogenic flange seals.
Rings / sanitary gasket sizes	Standard sanitary sizes (DN10 – DN200 / ½″ – 8″ tri-clamp sizes), custom ASME/DIN cut rings	Food/pharma tri-clamp gaskets, pure chemical feed lines, analytical vacuum ports.
Sheet formats	Rolls and sheets; PTFE tape rolls for wrap gaskets	Often supplied as preformed O-rings, flat rings, or as sheets for CNC cutting.

4) PTFE-laminated / PTFE-clad metal (PTFE-faced / PTFE metal-clad gaskets)

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Overall thickness (mm)	0.8 – 6.0 mm typical (PTFE facing 0.5–2.0 mm on a thin metal core)	1–3 mm laminates: standard chemical piping gaskets. 3–6 mm: reinforced gaskets for larger flanges with higher bolt loads.
Formats	Panels, pre-cut rings, laminated plates	Chemical plants, pulp & paper corrosive lines, scrubber systems.
Example selection	PTFE-faced stainless steel ring gasket for chloride service	Flange facing protection + PTFE seal benefits.

5) PTFE-filled spiral-wound / PTFE-filler gaskets (PTFE as filler)

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Spiral cross-section widths	3 mm, 4.5 mm, 6 mm (common cross-sections); larger or custom available	ASME flanges Class 150–600 for chemical lines where PTFE corrosion resistance is needed.
ASME flange sizes	Standard flange sizes per ASME B16.5 (½″–24″ and larger) available	Chemical plant piping, pump heads, reactor nozzles at moderate T.
Inner/outer ring usage	Use with centering/outer rings for large OD flanges and to prevent filler extrusion	Required for high-pressure or thin flange faces.

6) PTFE-envelope (PTFE-jacketed) gaskets — PTFE jacket over a soft or metallic core

Common sizes & application scenarios

Item	Typical stock / notes	Typical application scenarios
Jacket thickness / overall	PTFE jacket typically 0.3 – 1.0 mm per face; overall gasket thickness commonly 1.5 – 6.0 mm depending on core	1–3 mm overall: small/medium flanges in chemical plants. 3–6 mm: larger flanges requiring more compressibility.
Formats	Pre-formed rings, multi-hole head gaskets; custom CNC/die cut	Chemical, pharma, food processing where PTFE contact surface required and core strength needed.