

Complete Guide to KAM Profile Gaskets

Introduction

KAM (Kammprofile) Gaskets are high-performance sealing solutions designed for critical flange connections in industries requiring reliable sealing under extreme pressure, temperature, and corrosive conditions. These gaskets feature a serrated metal core with a soft facing material, combining the strength of metal with the conformability of non-metallic layers.

Key Benefits

- ✓ High sealing performance (low leakage rates)
- ✓ Excellent thermal & mechanical stability
- ✔ Reusable (in some applications)
- ✔ Resistant to blowout under pressure cycling

Technical Features & Materials

Construction & Materials

Component	Material Options	Function
Metal Core	SS304, SS316, Titanium	Provides structural strength
Facing Material	Graphite, PTFE, CNA	Ensures tight seal
Inner/Outer Ring	Carbon steel, SS316	Prevents over-compression



Performance Specifications

Property	Value Range	Test Standard
Max Temperature	-200°C to 800°C	ASTM F146
Max Pressure	Up to 300 BAR	ASME B16.20
Compressibility	10-20%	EN 13555
Recovery	30-50%	ASTM F36





Standards & Certifications

Standard	Scope	Applicability
ASME B16.20	Metallic gaskets	Design & dimensions
EN 1591	Flange gasket calculations	Pressure & tightness
API 6A	Wellhead & Christmas tree equipment	Oil & gas applications
ISO 9001	Quality management	Manufacturing compliance

Size Classes & Pressure Ratings

Standard Sizes (ASME/EN/DIN Flanges)

Nominal Size (inches)	Inner Diameter (mm)	Outer Diameter (mm)	Thickness (mm)
2"	52	102 The Climente:	4.5
6"	154	216	4.5
12"	309	381	4.5



Pressure-Temperature Ratings

Flange Class	PN Rating	Max Pressure (BAR @ 20°C)
PN16	16	16
PN40	40	40
ASME 300#	-	50
ASME 600#	-	100

Color Coding & Identification

Facing Material	Color Code	Typical Use
Graphite	Gray	High-temperature steam
PTFE	White	Chemical resistance
CNA (Compressed Non-Asbestos)	Blue	General industrial
Rubber (EPDM/NBR)	Black/Red	Water/glycol systems



Industry Applications

Industry	Gasket Type	Key Requirements
Oil & Gas	SS316 + Graphite	High-pressure, sour gas resistance
Power Generation	SS304 + PTFE	Steam & thermal cycling resistance
Chemical Processing	Titanium + PTFE	Acid/alkali resistance
Heavy Industries	Carbon steel + CNA	Mechanical durability

Handling & Storage Guidelines

Storage

- Temperature: <40°C (to prevent degradation of facing materials)
- Humidity: <60% RH (prevents moisture absorption in graphite)
- Stacking: Store flat to avoid deformation

Installation

- Flange Preparation: Clean surfaces, remove old gasket residue.
- Alignment: Ensure proper centering (no overhang).
- Bolt Tightening:
- Follow ASME PCC-1 torque sequence (star pattern).
- Re-torque after 24hrs of operation.

Safety

- PPE: Gloves (for handling graphite/PTFE), safety glasses.
- Ventilation: Required when machining PTFE.

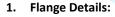


Troubleshooting Common Issues

Issue	Root Cause	Solution
Leakage	Incorrect facing material	Upgrade to PTFE/graphite
Gasket blowout	Over-compression	Use thicker gasket
Chemical attack	Incompatible media	Switch to PTFE-lined
Bolt relaxation	Thermal cycling	Re-torque after 24hrs

How to Order

Information Required





2. Operating Conditions:

o Temperature, pressure, media (e.g., H₂SO₄, steam).

3. Material Preference:

- Metal core (SS316, Titanium).
- Facing (Graphite, PTFE, CNA).

Order Channels

• Online: <u>www.coheretech.in</u>

Email: info@coheretecch.in (attach flange drawings)



Lead Times

• Stock Gaskets: 24–48hrs (standard sizes).

• Custom: 1–3 weeks (special materials/dimensions).

Compliance & Safety Data

• Fire-Safe: API 6FB (for oil & gas applications).

• FDA Compliance: PTFE gaskets for food/pharma.

MSDS: Available for all materials.

Emergency Contact: +91 96003 00448

