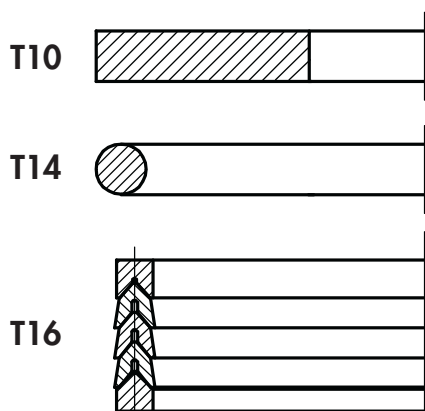


9. PTFE GASKETS

PROPERTIES AND APPLICATION

PTFE gaskets are one of the most suitable types of gaskets for a variety of sealing applications and are mostly based on virgin PTFE or filled PTFE. And what provides the PTFE gaskets with such an extensive range of applicability? The answer is PTFE. PTFE is a fluoropolymer, which features an outstanding chemical resistivity to almost all chemicals, good thermal insulation properties, and useful mechanical and processing characteristics. The above-mentioned PTFE features can be usefully applied in PTFE gaskets. They can be mostly used in valve seats, bearings, requested to resin sliding and chemicals, elastic band for un-lubricated compressors, O-rings where elastomers can not withstand. An extended range of improved mechanical and processing properties can be additionally reached by combination of virgin PTFE and different fillers. Different combination offer a variety of different properties described in the following table.



Filler	Improved properties
Glass	<ul style="list-style-type: none"> → enhanced wear resistance → chemical resistance
Graphite	<ul style="list-style-type: none"> → extremely low coefficient of friction → fairly good compressive strength → good wear resistance
Carbon	<ul style="list-style-type: none"> → good thermal resistance → resistance to deformation
Bronze	<ul style="list-style-type: none"> → enhanced compressive strength → good wear resistance → high thermal conductivity

Expanded PTFE Gaskets and Seal materials consist of virgin PTFE with multidirectional fibrous and/or porous structure, which the extruded PTFE consists of. A special manufacturing process provides the material with special chemical and physical properties. This can be of advantage in wide range of the applications.

ADVANTAGES

Virgin PTFE, PTFE compounds and expanded PTFE offer a wide range of compounded products with good mechanical properties, electrical properties, thermal properties, chemical resistance, low friction coefficient and good resistance to wear.

SHAPE AND CONSTRUCTION

Several types of TESNILA PTFE gaskets are produced to meet the most demanding application.

Materials

DONIT TESNIT is using virgin PTFE powder and compounds for RAM extrusion and compression moulding delivered exclusively by recognised supplier.

SIZE

SIZE limitations: each piece can feature a maximum external diameter of up to 1000 mm.

STANDARDS FOR PTFE GASKETS USED WITH FLANGES	
Gasket Standard	Flange Standard
EN 1514-1 (former DIN 2690, DIN 2692, DIN 2693)	PrEn 1092-1,-2,-3,-4 , EN 545, EN 598, EN 969

GASKET ORDERING EXAMPLE

EN 1514-1 (former DIN 2690), DN 65, PN 16, Form IBC
virgin PTFE, 2 mm,

