



FLAT SEALS FOR STATIC TIGHTNESS



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Flat sealing washers are essential elements on which the proper functioning of organs and the safety of entire installations depend. Because their effectiveness is primordial, their selection has to be determined very early on in the study stage, taking account of all the conditions under which they will be used.

For more than sixty years, Jicey has provided the most suitable solution to your needs for tightness. Our extremely wide choice of materials (elastomers, cork, paper, asbestos-free, metalised plastics and metals) enables us to meet the variety of applications and environments by offering a significant number of specific properties.

We put at your service our lengthy experience in selecting the right material and the proper thickness and manufacturing to your specifications the flat seal for static tightness that performs best, most efficiently and with the best resistance. We offer you a technical solution that suits the most critical parameters perfectly (temperatures of use, pressure, vibrations, fluid to be sealed, robustness of the plane of the seal, thermal or electrical conductivity, elastic recovery, etc.). Our severe checks during manufacture reflected in our ISO 9001 certification together with our partnerships with leading edge industries guarantee you flat seals for static tightness of a very high quality.

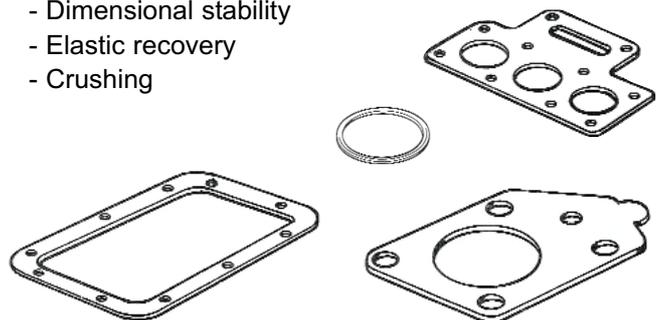
Jicey flat seals for static tightness are universally recognised and used in a wide variety of industries.

ADVANTAGES:

- Extremely wide choice of materials
- High performance
- Perfectly tailor-made
- Excellent quality / price ratio

VARIOUS PROPERTIES OF THE MATERIALS:

- Resistance to temperature (up to 2,500° C for graphite) and variations in temperature
- Resistance to chemical products and solvents
- Resistance to hydrocarbons, oils and gases
- Resistance to twisting, vibration and shearing
- Compressibility
- Conductivity of heat and electricity
- Dimensional stability
- Elastic recovery
- Crushing



The tables below provide an overall summary of the different characteristics of the various products. We have detailed technical sheets for each product available to you.

ELASTOMER
INTRINSIC PROPERTIES : high elastic recovery, incompressible

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
NATURAL	CNA	Water, air, subject to atmospheric agents, food industries	from 20 to 95 ShA	T°C -30 +80 Pbar <10
NEOPRENE	CNE	Water, air, subject to atmospheric agents	insoluble in hydrocarbons, non-flammable	T°C -20 +120 Pbar <10
NITRILE / PERBUNAN	CNI / CPE	Gas, hydrocarbons, solvents	from 35 to 95 ShA	T°C -55 +130 Pbar <10
VITON® (fluorocarbon)	CVI	Acids, hydrocarbons, solvents, very aggressive environments, high temperatures	resistant to temperatures, non-flammable (self-extinguishing) from 50 to 95 ShA	T°C -25 +230 Pbar <10
BUTYL		Water, gas, acids, strong bases, very corrosive environments	resistant to atmospheric agents, food industries, from 50 to 60 ShA	T°C -60 +135 Pbar <10
EPDM	CEPD	Strong bases, vapor, liquefied gases, solvents, atmospheric agents	very good resistance to atmospheric agents	T°C -55 +145 Pbar <10
SILICONES	CSI	Water, acids, bases, subject to atmospheric agents	from 20 to 60 ShA	T°C -100 +270 Pbar <10

CORK
INTRINSIC PROPERTIES : high compressibility, usable in low pressures conditions, average temperatures

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
NATURAL CORK	LAG	Water, oils, hydrocarbons: casing gaskets	Highly compressive, can be used with poor sealing plans	No dimensional stability when stocked T°C -30 +100 Pbar <10
NATURAL STRENGTHEN CORK	LAR	Water, oils, hydrocarbons: casing gaskets	Highly compressive, can be used with very poor sealing plans. Excellent dimensional stability	T°C -30 +100 Pbar <10
BUTADIENE CORK	LCB	Hydrocarbons, solvents, heating, gases	Good compressibility, resistant to ageing, average dimensional stability.	Less compressive than natural cork T°C -30 +120 Pbar <10
GF CORK	LGF	Hydrocarbons, solvents, heating, liquefied gases	registered by GAZ DE FRANCE, resistant to ageing, average dimensional stability	T°C -30 +130 Pbar <10

PAPER
INTRINSIC PROPERTIES : average compressibility, usable in low pressures conditions, average temperatures

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
PAPER JH	PJH	Air, water, oils, hydrocarbons	low compressibility	T°C -20 +150 Pbar <10
PAPER +NBR (Betalflex 69) *	PBE-6	Air, water, cold and warm oils, hydrocarbons and anti-freeze	average compressibility, very good elastic recovery	T°C -20 +150 Pbar <10
PAPER +NBR (Betalflex 72) *	PBE-7	Air, water, cold and warm oils, hydrocarbons and anti-freeze	good compressibility, good elastic recovery	T°C -20 +150 Pbar <10
PAPER +NBR (Betalflex 87) *	PBE-8	Air, water, cold and warm oils, hydrocarbons and anti-freeze	good compressibility, very good elastic recovery	T°C -20 +150 Pbar <10

* Ahlstrom Altenkirchen trade mark

WITHOUT ASBESTOS
INTRINSIC PROPERTIES : average compressibility, usable in high pressures conditions, high temperatures

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
ARAMIDE+NBR	TBA*	air, water, oils, hydrocarbons, acids, bases, gas	For temperatures of 220°C. Good compressibility, good elastic recovery	T° MAX vapor 180°C, T° MAX 300°C, pressure < 80 bars
CARBON+NBR	TBC	vapor, hydrocarbons, alkaline environments	For temperatures of 300°C. Good compressibility, good elastic recovery	T° MAX vapor 250°C, T° MAX 400°C, pressure < 100 bars
GRAPHITE+NBR	TBG*	vapor, hydrocarbons, alkaline environments, gases, low acid environments	For temperatures of 300°C. Average compressibility, good elastic recovery	T° MAX 400°C, pressure < 100 bars
GLASS+NBR	TBV	water, vapor, oils, organic acids, air, hydrocarbons	For temperatures of 350°C. Average compressibility, good elastic recovery	T° MAX 440°C, pressure < 100 bars
EXPANDED STRENGTHEN GRAPHITE	TGB-R	aggressive chemical products, hydrocarbons, thermal shocks	For temperatures of : 450°C confined fluid oxidising environment 550°C inert fluid oxidising environment 800°C inert & reducing fluid and environment VERY GOOD COMPRESSIBILITY, good elastic recovery	pressure MAX< 40 bars T° MINI -200°C T° MAX 600°C
EXPANDED NON-STRENGTHEN GRAPHITE	TGB-S	aggressive chemical products, hydrocarbons, thermal shocks	For temperatures of : 450°C confined fluid oxidising environment 550°C inert fluid oxidising environment 2500°C inert & reducing fluid and environment VERY GOOD COMPRESSIBILITY, good elastic recovery	pressure MAX< 50 bars T° MINI -200°C T° MAX 2500°C

* a metal reinforcement can improve the resistance to high pressures further still

METALLOPLASTIC
INTRINSIC PROPERTIES : average compressibility, usable in high pressures conditions, high temperatures, very high thermal conductivity

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
ALLIPLASTIC®	A	Water, oils, hydrocarbons, cylinder head gasket thermal engines and compressors, Ultra-high frequencies seals	Resistant to temperatures and pressures. Good compressibility, very good elastic recovery, EXCELLENT THERMAL AND ELECTRIC CONDUCTIVITY	T° MAX 300°C, pressure < 100 bars

METAL
INTRINSIC PROPERTIES : low compressibility, usable in VERY high pressures conditions, VERY high temperatures, good thermal conductivity

DESIGNATION	SYMBOL	APPLICATIONS	PROPERTIES	LIMITS
STEEL seal	JAC	Water, oils, hydrocarbons, cylinder head gasket thermal engines and compressors	excellent resistance to temperatures and pressures. GOOD THERMAL CONDUCTIVITY	T° MAX 450°C, pressure < 150 bars oxidation
STAINLESS STEEL seal	JAI	Water, oils, acids, bases, hydrocarbons, cylinder head gasket thermal engines and compressors chemical industries	excellent resistance to temperatures and pressures. GOOD THERMAL CONDUCTIVITY	T° MAX 450°C, pressure < 200 bars
COPPER seal	JCU	Water, oils, hydrocarbons, cylinder head gasket thermal engines and compressors	excellent resistance to temperatures and pressures, good compressibility EXCELLENT THERMAL CONDUCTIVITY	T° MAX 400°C, pressure < 150 bars

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