

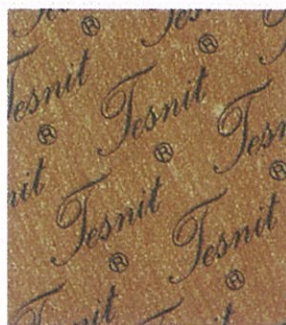
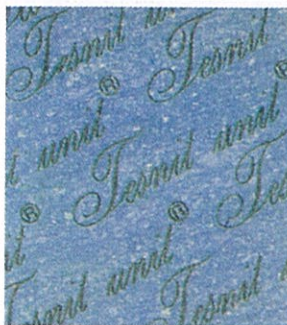
Tesnit[®]

TESNIT

Automotive & Industrial Gaskets

- *non-asbestos • compressed asbestos •*
- *wire-reinforced • steel asbestos •*

Specification and Technical Data



(Values relate to 1.5mm thickness)

Brand - Name (Style)				Tesnit Unit® 4 x A		Tesnit® 4 x A		Tesnit Solvenit® 4 x A	
Colour Identification				Blue		Red		Grey	
Binder				NBR		NBR/SBR		NBR	
General Application Guide				High quality for highest pressures and temperatures suitable for hydrocarbons, solvents, oils, fuels, alkalis or other media		High quality for high pressures and temperatures suitable for super heated and saturated steam, hydrocarbons, solvents, oils fuels, gases, hydraulics, compr.air and some chemicals.		High quality with excellent resistance against hydrocarbons, solvents, oils fuels, lubricants, aromatics and freons.	
Pressure		bar		150		130		130	
Temperature		°C		550		550		500	
Permissible Surface Stress		max N/mm2		150		120		120	
Compressibility*		-ASTM F36-66 %		10		7		7	
Recovery*		-ASTM F36-66 min %		55		40		40	
Stress Relaxation		-DIN 52913 min N/mm2		40		35		35	
Tensile, Across		-DIN 52910 min N/mm2		25		23		21	
Max. Thickness Increase After Immersion ASTM D471-75									
ASTM Oil No 3		-5hrs/150°C %		10		20		6	
ASTM Fuel B		-5hrs/150°C %		13		15		8	
H ₂ SO ₄ (Sulphuric) 96%		-18hrs/120°C %		-		-		-	
HNO ₃ (Nitric)40%		-18hrs/120°C %		-		-		-	
Ignition Loss		-DIN 52911 max %		22		21		23	
Density		-DIN 3754 g/cc		1.9		1.9		1.9	
Thickness Range		mm		0.25to 6.0		0.25 to 6.0		0.25 to 6.0	
Standard Sheet Size		mm		1500x1500		1500x1500		1500x1500	
Special Sheet Size On Request		mm		1500x2000		1500x2000		1500x2000	
Tolerances				Thickness: up to 1.0mm ±0.1mm, 1.2mm and up ±10%					
Specification Compliance		American (ASTM)		D1170 -P1141A -P1151A -P1161A F104 -F112121 M8 -F112751 -F112400 SAE -J90A + B		D1170 -P1141A -P1151A -P1161A F104 -F112551 M8 -F112751 -F112400 MIL -17472A-G -12803-'A' or 'D' SAE -J90A+B		D1170 -P1141A -P1151A F104 -F112130 M8 -F112100 MIL -A-7021-'A' or 'B' -7021-B-1 AMS -3232G SAE -J90A+B	
		British (BS)		2815A 1832 F125		2815A 1832 1737 Admiralty		2815A 1832	
		French (NFT)		48001-D		48001-D		48001-D	
		German (DIN)		3754 -IT-C -IT-400 -IT-'O' 3535		3754 -IT-400 -IT-300 -IT-MO 86075 -IT-MN 3535		3754 -IT'O' 3535	
		Japanese (JIS) (JIP)		R3453 -1, 2+3 F7102 -30LS W1102 -1 200SJ -400SJ 7S-4-71 A+B		R3453 -1, 2+3 F7102 -30LS 220SJ -400SJ 7S-4-71A+B		R3553 -1,2+3 F7102 -30LS W1102 -1 220SJ -400SJ 7S-4-71 A+B	
(Please consult us for others not shown)									

* Recovery is measured relative to compressibility. Example: 3.0mm thick : 7% compressibility and 40% recovery=

Tesnit 'H.P.' Jointing (Silver)

A high pressure jointing with a special silver finish. For technical data refer to Tesnit® 4 x A red in above chart.

Tesnit Solvenit Auto

Developed for the automotive industry for controlled swelling, or when bolt loadings are light and uneven.

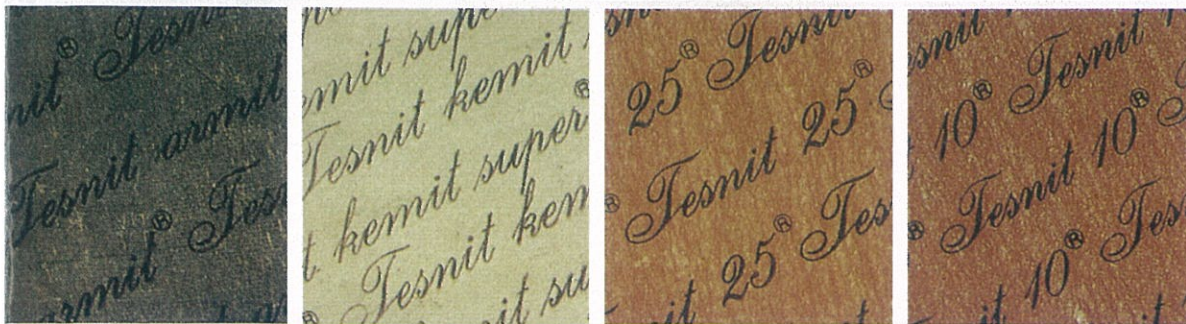
Tesnit Elektro

For the Elektro industry with good insulating Characteristics.

Tesnit 40

A high quality jointing for the oil and petrochemical industry.

Special brands (styles) and sheet surface treat



Tesnit Armit®	Tesnit Kemit-Super®	Tesnit 25®	Tesnit 10®	Brand-Name (Style)
Graphite NBR/SBR	White HYPALON	Red or Graphite SBR	Red or Graphite SBR	Colour Identification Binder
Steel wire-reinforced for highest fluctuating pressures and temperatures and extreme services, for oils, fuels, lubricants, solvents, steam, water, air and gases.	For high pressure applications in the chemical industries, also suitable for ceramic and glass flanges.	General purpose jointing for medium pressures and temperatures, steam, hydraulics, air, gases, oils and other non-aggressive media.	General purpose jointing for lower pressures and temperatures, steam, hydraulics, air, gases oils and other non-aggressive media.	General Application Guide
200	20	45	30	Pressure
550	150	450	350	Temperature
150	60	90	80	Permissible Surface Stress
7	8	7	9	Compressibility*
50	40	40	50	Recovery*
40	25	25	25	Stress Relaxation
25	15	13	11	Tensile, Across
15	-	30	30	ASTM Oil No. 3
15	-	20	20	ASTM Fuel B
-	15	-	-	H ₂ SO ₄ - 96%
-	15	-	-	HNO ₃ - 40%
17	26	23	23	Ignition Loss
2.2	1.8	1.9	1.9	Density
0.6 to 4.0	0.5 to 4.0	0.4 to 4.0	0.4 to 4.0	Thickness Range
1500 x 1500	1500 x 1500	1500 x 1500	1500 x 1000	Standard Sheet Size
1500 x 2000	-	1500 x 4500	1500 x 2000	Special Sheet Size
Sheet Size : ±5%				Tolerances
	F104 -F112000	D1170 -P1161A F104 -F112750 MIL -17472A SAE -J.90A+B	F104 -F112700 -F112750 MIL -17472A SAE -J.90A+B	Specification Compliance American (ASTM)
2815A Reinforced		2815B	2815B	British (BS)
	48001-E	48001-B	48001-B	French (NFT)
3754 Reinforced	3754 -IT-S 3535	3754 -IT 200 86075 -IT-MN	3754 -IT-200	German(DIN)
Reinforced		R3453 -1+2 F7102 -30LS 75-4-71A+B 220SJ -400S	R3543 -2 F7102 -16WJ +30LS R3453 -1+2 J75-4-71A+B 220SJ -400SJ	Japanese (JIS) (JIP)

$$A) 3.0(\text{mm}) \times 7 (\%) \div 100 = 0.21$$

$$B) 40(\%) \times 0.21 \div 100 = 0.084$$

$$C) 3.0 - 0.21 + 0.084 = 2.87\text{mm Final Thickness}$$

are available on request. Contact us for details on:

Tesnit Armit 300 (Sheet size 1000mm x 1400mm)

A wire-reinforced sheet, available in the thicknesses from 1.0mm to 1.8mm for pressures up to 300 bar at 600°C.

Tesnit Armit 1001 (Sheet size 1000mm x 1400mm)

A wire-reinforced sheet, available in the 1.2mm thickness for pressures up to 1000 bar at 600°C

Tesnit Plutit

A soft jointing designed for low and uneven bolt loadings

Tesnit Extra

A general purpose jointing for low pressures and temperatures.

C. A. F. – CHEMICAL SUITABILITY CHART

MEDIUM	TESNIT UNIT	TESNIT RED TESNIT ARMIT	TESNIT SOLVENT	TESNIT KEMITS	TESNIT 25
Acetaldehyde	B	B	C	B	A
Acetamide	A	A	A	A	A
Acetic Acid 100%	A	A	A	A	A
Acetic Acid 10%	A	A	A	A	A
Acetic Ether	A	A	B	B	B
Acetone	B	A	B	B	A
Acetylene	A	A	A	B	A
Adipic Acid	A	A	A	A	A
Air	A	A	A	A	A
Alcohol	A	A	A	A	A
Alum	A	A	A	A	A
Aluminium Acetate	A	A	A	A	A
Aluminium Chlorate	A	A	A	A	A
Aluminium Chloride	A	A	A	A	A
Ammonia	A	A	A	A	A
Ammonia	A	A	A	A	A
Ammonium Chlorite	A	A	A	A	A
Ammonium Diphosphate	A	A	A	A	A
Ammonium Hydroxide	A	A	A	A	A
Amyl Acetate	A	A	B	B	B
Aniline	C	A	C	B	A
Arcton 12	A	B	A	C	C
Arcton 22	B	C	B	C	C
Aviation Fuel (Kerosene)	A	B	A	C	C
Barium Chloride	A	A	A	A	A
Benzene (Benzol)	A	B	A	C	C
Benzine (Petr. Spirit)	A	B	A	C	C
Benzonic Acid	A	A	A	A	A
Bleach Solutions	A	A	A	A	A
Boiler Feed Water	A	A	A	B	B
Borax	A	A	A	A	A
Boric Acid	A	A	A	A	A
Brine	A	A	A	A	A
Butane	A	A	A	B	B
Butanone (M.E.K.)	B	A	B	C	B
Butyl Acetate	A	A	B	C	B
Butyl Alcohol (Butanol)	A	A	A	A	A
Butyric Acid	A	A	A	A	A
Calcium Chloride	A	A	A	A	A
Calcium Hydroxide (Lime Water)	A	A	A	A	A
Calcium Hypochlorite	A	A	A	A	A
Calcium Sulphate	A	A	A	A	A
Carbolic Acid	B	A	B	C	B
Carbon Dioxide	A	A	A	A	A
Carbon Disulphide	A	C	A	C	C
Carbon Tetrachloride	A	B	B	C	C
Castor Oil	A	A	A	C	B
Chlophen T64	A	C	A	A	C
Chlorine (Dry)	A	A	A	B	B
Chlorine (Wet)	B	B	B	B	C
Chlorine Water	A	A	A	A	A
Chloroform	B	B	B	C	C
Chloromethane	B	B	B	C	C
Chromic Acid	B	C	B	A	C
Citric Acid	A	A	A	A	A
Copper Acetate	A	A	A	A	A
Condensate	A	A	A	B	A
Copper Sulphate	A	A	A	A	A
Creosote	B	B	C	C	B
Cresol	B	A	B	C	B
Cyclohexanol	A	A	A	C	B
Decalin	A	B	A	B	C
Dibenzylether	B	A	C	B	C
Dibutylphthalate	A	A	A	C	C
Diesel Oil	A	B	A	C	B
Dimethylformamide	C	A	C	C	B
Diphyl (Dowtherm A)	B	C	B	C	C
Dye Liquor (Alkaline, Neutral, acidic)	A	A	A	A	A
Ethane	A	A	A	A	A
Ethyl Acetate	A	A	B	C	B
Ethyl Alcohol, Ethanol	A	A	A	A	A
Ethyl Chloride	B	C	B	C	C
Ethylene Chloride	B	A	C	C	B
Ethylene Glycol	A	A	A	A	A
Ethyl Ether	A	B	A	B	C
Fluorosilicic Acid	A	A	A	A	A
Formaldehyde	A	A	A	A	A
Formamide	B	B	B	B	B
Formic Acid 10%	A	A	A	A	A
Formic Acid 85%	A	A	B	A	B
Freon 12	A	B	A	C	C
Freon 22	B	C	B	C	C
Glycerine	A	A	A	A	A
Heating Oil	A	B	A	C	C
Heptane	A	B	A	B	C
Hydraulic Oil (Glycol Based)	A	A	A	C	A
Hydraulic Oil (Mineral)	A	B	A	B	C
Hydraulic Oil (Phosphate Ester Based)	A	A	A	B	A
Hydrochloric Acid 20%	B	B	B	A	C
Hydrochloric Acid 37%	B	B	C	A	C
Hydrofluoric Acid 10%	C	C	C	B	C
Hydrofluoric Acid 40%	B	B	B	B	C
Hydrogen	A	A	A	A	A
Hydrogen Chloride (Dry)	A	A	A	A	A
Hydrogen Peroxide (up to 6% w/w)	A	A	A	A	A
Iso-octane	A	B	A	C	C
Iso-Propyl Alcohol	A	A	A	A	A

MEDIUM	TESNIT UNIT	TESNIT RED TESNIT ARMIT	TESNIT SOLVENT	TESNIT KEMITS	TESNIT 25
Kerosene	A	B	A	C	C
Lactic Acid 50%	A	A	A	A	A
Lead Acetate	A	A	A	A	A
Linseed Oil	A	A	A	B	B
Magnesium Sulphate	A	A	A	A	A
Mallic Acid	A	A	A	A	A
Methane	A	A	A	A	A
Methyl Alcohol	A	A	A	A	A
Methylated Spirits	A	A	A	A	A
Methyl Chloride	B	B	B	C	C
Methylene Chloride	B	B	C	C	C
Methyl Ethyl Ketone	B	A	B	C	B
Mineral Oil, ASTM No. 1	A	A	A	B	A
Mineral Oil, ASTM No. 3	A	B	A	B	C
Monochloromethane	B	C	B	C	C
Naphtha	A	B	A	B	C
Natural Gas	B	B	A	C	C
Nitric Acid 20%	B	B	C	A	C
Nitric Acid 40%	B	C	C	A	C
Nitric Acid 96%	C	C	C	A	C
Nitrobenzene	C	B	C	C	C
Nitrogen	A	A	A	A	A
Octane	A	B	A	B	C
Oleic Acid	A	A	A	A	B
Oleum (Fuming Sulphuric Acid)	C	C	C	C	C
Oxalic Acid	B	B	B	A	C
Oxygen	A	A	A	A	A
Palmitic Acid	A	A	A	A	B
Paraffin (Kerosene)	A	B	A	A	C
Pentane	A	B	A	B	C
Perchloroethylene	B	B	B	C	C
Petroleum Ether	A	A	A	C	B
Phenol	B	A	B	B	B
Phosphoric Acid (all concentrations)	A	A	A	A	A
Phthalic Acid	A	A	A	B	A
Potassium Acetate	A	A	A	A	A
Potassium Carbonate	A	A	A	A	A
Potassium Chlorate	A	A	A	A	A
Potassium Chromium Sulphate	A	A	A	A	A
Potassium Cyanide	A	A	A	A	A
Potassium Dichromate	A	A	A	A	B
Potassium Hypochlorite	A	A	A	A	A
Potassium Permanganate	A	A	A	A	A
Producer Gas (Generator)	A	A	A	A	A
Propane	A	A	A	B	B
Pyridol	B	A	A	C	B
Pyridine	C	A	C	C	B
Rapeseed Oil	A	A	A	B	B
Saltpetre (Potassium Nitrate)	A	A	A	A	A
Salt	A	A	A	A	A
Sea Water	A	A	A	A	A
Silicone Oil	A	A	A	C	A
Soap	A	A	A	A	A
Soda	A	A	A	A	A
Sodium Aluminate	A	A	A	A	A
Sodium Bicarbonate	A	A	A	A	A
Sodium Bisulphite	A	A	A	A	A
Sodium Chloride	A	A	A	A	A
Sodium Hydroxide	A	A	A	A	B
Sodium Silicate	A	A	A	A	A
Sodium Sulphate	A	A	A	A	A
Spinning Bath	A	A	B	A	B
Starch	A	A	A	A	A
Steam	A	A	A	B	A
Stearic Acid	A	A	A	A	B
Sugar	A	A	A	A	A
Sulphur Dioxide	B	B	B	A	C
Sulphuric Acid 20%	B	B	C	A	C
Sulphuric Acid 50%	B	B	C	A	C
Sulphuric Acid 96%	B	B	C	A	C
Sulphurous Acid	B	B	B	A	C
Tannic Acid	A	A	A	A	A
Tar (Asphalt)	A	A	A	C	A
Tartaric Acid	A	A	A	A	A
Tetrachloroethane	B	B	B	C	C
Tetralin	A	B	A	C	C
Toluene	A	A	A	C	A
Town Gas	A	B	A	B	C
Transformer Oil	A	A	A	C	B
Trichloroethylene	A	A	A	C	B
Triethanolamine	A	A	A	A	A
Turpentine	A	B	A	C	C
Urea	A	A	A	A	A
Vinyl Acetate	A	B	A	C	C
Water	A	A	A	A	A
Water Glass	A	A	A	A	A
White Spirit	A	B	A	C	C
Xylol	A	B	A	C	C

A: Recommended

B: Suitability depends on operating conditions

C: Not recommended. Please consult us

The data shown in this brochure should serve as a guide to select a most appropriate material. No guarantees can be given, as the lifetime and resistance of the products depend on factors over which the manufacturer has no control.