

# TEMAGRAPH FI



## PRINTING COLOUR

## DESCRIPTION AND APPLICATION

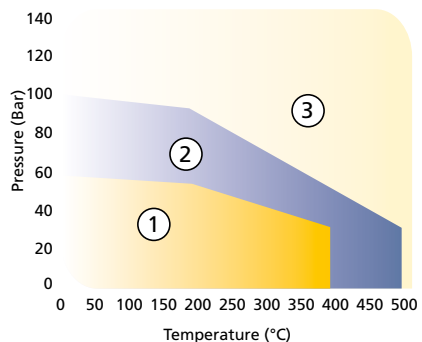
## RED BRANDING

Temagraph FI is a graphite laminate product reinforced with one or more thin flat metallic insertions which are bonded using a chloride-free adhesive layer. It is general service material for high pressure and high temperature applications including steam. This material is mainly used in chemical, petrochemical and related industries.

Marking acc. to	DIN 28 091-4		GR-10-O-1 K-Cr
Sheet size		m	1,0 x 1,0 (1,5 x 1,5)
Thickness		mm	from 0,75 to 3,0
No. of insertion		pc	1 or 2
Thickness of insertions		mm	0,05
Material of insertion	DIN / ASTM		1.4401 / SS 316 (flat)
Max. temperature*		°C	from - 200 to +500
Max. pressure*		bar	100
Density		g/cm <sup>3</sup>	0,7–1,0
Compressibility	ASTM F 36A	%	40–50
Recovery	ASTM F 36A	%	10–15
Residual stress	DIN 52 913, 300°C/50MPa	N/mm <sup>2</sup>	≥ 45
Tensile strenght		MPa	unlisted
Ash content	DIN 51 903	%	≤ 2,0
Chloride content		ppm	≤ 50

\* max. values can not be used simultaneously  
 – gasket factors on requested  
 – if required the material can be supplied in so-called nuclear grade

Legend: 1 - suitable subject to chemical compactability  
 2 - suitable extended area, technical advice is recommended  
 3 - for this area technical consultation is mandatory



# CHEMICAL RESISTANCE TABLE

	TEMAGRAPH						
	S	FI	TI	NI	HP	TG	
Acetic acid 10%	A	A	A	A	A	A	A
Acetone	A	A	A	A	A	A	A
Acetylene	A	A	A	A	A	A	A
Adipic acid	A	A	A	A	A	A	A
Air	A	A	A	A	A	A	A
Alum	A	A	A	A	A	A	A
Aluminium chloride	A	C	C	C	C	C	C
Ammonia	A	A	A	A	A	A	A
Ammonium hydrogenphosphate	A	A	A	A	A	A	A
Ammonium hydroxide	A	A	A	A	A	A	A
Ammonium chloride	A	B	B	B	B	B	B
Aniline	A	A	A	A	A	A	A
Aqua regia	C	C	C	C	C	C	C
Asphalt	A	A	A	A	A	A	A
Barium chloride	A	A	A	A	A	A	A
Benzene	A	A	A	A	A	A	A
Boric acid	A	A	A	A	A	A	A
Butane	A	A	A	A	A	A	A
Butyl alcohol	A	A	A	A	A	A	A
Calcium hydroxide	A	A	A	A	A	A	A
Calcium hypochloride	A	A	A	A	A	A	A
Calcium sulphate	A	B	B	B	B	B	B
Carbon dioxide	A	A	A	A	A	A	A
Carbon disulphide	A	A	A	A	A	A	A
Cooper sulphate	A	A	A	A	A	A	A
Cyclohexanole	A	A	A	A	A	A	A
Cyklohexanone	A	A	A	A	A	A	A
Di-butyl phthalate	A	A	A	A	A	A	A
Ethane	A	A	A	A	A	A	A
Ethyl acetate	A	A	A	A	A	A	A
Ethyl alcohol	A	A	A	A	A	A	A
Ethyl ether	A	A	A	A	A	A	A
Ethyl chloride	A	A	A	A	A	A	A
Ethylene	A	A	A	A	A	A	A
Ethylene glycol	A	A	A	A	A	A	A
Fluorine dioxide	C	C	C	C	C	C	C
Fluorine gas	B	C	C	C	C	C	C
Fluorine liquid	C	C	C	C	C	C	C
Formaldehyde	A	A	A	A	A	A	A
Fuel aviation	A	A	A	A	A	A	A
Gas LPG	A	A	A	A	A	A	A
Gas natural	A	A	A	A	A	A	A
Glycerine	A	A	A	A	A	A	A
Hydrofluoric acid (up to 40%)	B	C	C	C	C	C	C
Hydrogen	A	A	A	A	A	A	A
Hydrogen fluoride	A	C	C	C	C	C	C
Hydrogen chloride	A	A	A	A	A	A	A
Hydrogen chloride dry	A	A	A	A	A	A	A
Hydrogen chloride wet	A	C	C	C	C	C	C
Hydrogen peroxide 6%	A	A	A	A	A	A	A
Hydrochloric acid 20%	B	C	C	C	C	C	C
Chlorine dry	A	A	A	A	A	A	A
Chlorine water	C	C	C	C	C	C	C
Chlorine wet	C	C	C	C	C	C	C
Chloromethane	A	A	A	A	A	A	A
Chloroform	A	A	A	A	A	A	A
Chromic acid (up to 20%)	B	C	C	C	C	C	C
Iso-octane	A	A	A	A	A	A	A
Isopropyl alcohol	A	A	A	A	A	A	A
Kerosene	A	A	A	A	A	A	A
Methylene chloride	A	A	A	A	A	A	A
Nitric acid 20%	A	A	A	A	A	A	A
Nitric acid (over 85%)	C	C	C	C	C	C	C
Nitric acid (up to 65%)	B	B	B	B	B	B	B
Nitrobenzene	A	A	A	A	A	A	A
Nitrogen	A	A	A	A	A	A	A
Oil crude naphtha	A	A	A	A	A	A	A
Oil heating	A	A	A	A	A	A	A
Oil hydraulic mineral	A	A	A	A	A	A	A
Oil motor	A	A	A	A	A	A	A
Oil silicon	A	A	A	A	A	A	A
Oil transformer	A	A	A	A	A	A	A
Oxalic acid	A	B	B	B	B	B	B
Oxygen (up to 350° C)	A	A	A	A	A	A	A
Paraffin	A	A	A	A	A	A	A
Petrol	A	A	A	A	A	A	A
Phenol	A	A	A	A	A	A	A
Phosphoric acid 95%	A	A	A	A	A	A	A
Potassium cyanide	A	A	A	A	A	A	A
Potassium dichromate	A	B	B	B	B	B	B
Potassium chlorate	A	A	A	A	A	A	A
Potassium iodide	A	A	A	A	A	A	A
Potassium nitrate	A	B	B	B	B	B	B
Soap solutions	A	A	A	A	A	A	A
Sodium carbonate	A	A	A	A	A	A	A
Sodium hydrogen carbonate	A	A	A	A	A	A	A
Sodium hydroxide	A	B	B	B	B	B	B
Sodium chloride	A	B	B	B	B	B	B
Sodium sulphate	A	A	A	A	A	A	A
Steam saturated	A	A	A	A	A	A	A
Sugar	A	A	A	A	A	A	A
Sulphuric acid 30%	A	B	B	B	B	B	B
Sulphuric acid 70%	A	C	C	C	C	C	C
Sulphurous acid	A	B	B	B	B	B	B
Tartaric acid	A	A	A	A	A	A	A
Tetrachlorethane	A	A	A	A	A	A	A
Tetrachloromethane	A	A	A	A	A	A	A
Toluene	A	A	A	A	A	A	A
Turpentine	A	A	A	A	A	A	A
Vinyl chloride	A	A	A	A	A	A	A
Water	A	A	A	A	A	A	A
Water chlorinated	A	A	A	A	A	A	A
Water potable	A	A	A	A	A	A	A
Water sea	A	A	A	A	A	A	A
Water waste	A	A	A	A	A	A	A
Xylene	A	A	A	A	A	A	A

A- suitable for application  
 B- suitable depends on conditions  
 C - not suitable

If another medium is applied please contact our technical team.