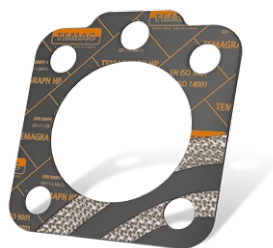


# TEMAGRAPH HP



## PRINTING COLOUR

## DESCRIPTION AND APPLICATION

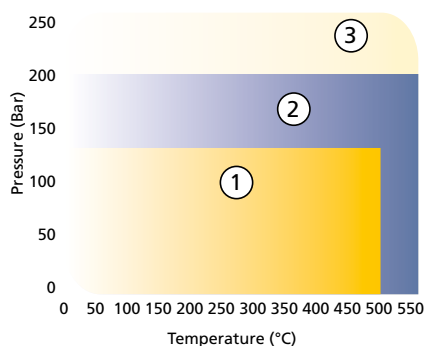
## ORANGE BRANDING

Temagraph HP is high integrity, multilayer sheet material with outstanding mechanical strength. It is designed for higher pressure and temperature applications and for flange connections where resistance to high bolt loadings is required. Temagraph HP is manufactured from the high purity expanded graphite foil reinforced with a number of perforated steel inserts (thickness 0,05mm) without the use of adhesive. This sandwich design confers high compressive strength to the material making it suitable for tongue and groove and exchanger applications as well as variety of demanding applications in the oil, refining and chemical industries. The multilayer composition also ensures that the product adapts well to a variety of flange surfaces.

Marking acc. to	DIN 28 091-4	GR-11-I-3 M-Cr
Sheet size	m	1,0 x 1,0 (1,5 x 1,5)
Thickness	mm	from 1,0 to 4,0
No. of insertion	pc	1 to 7
Thickness of insertions	mm	0,05
Material of insertion	DIN / ASTM	1.4401 / SS 316 (tanged)
Max. temperature*	°C	from -200 to +550
Max. pressure*	bar	200
Density	g/cm <sup>3</sup>	1,1
Compressibility ASTM F 36A	%	30–40
Recovery ASTM F 36A	%	4–5
Residual stress DIN 52 913, 300°C/50MPa	N/mm <sup>2</sup>	>48
Tensile strenght	MPa	unlisted
Ash content DIN 51 903	%	< 1,0
Chloride content	ppm	< 25

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