

# RESISTANCE TO CHEMICAL AGENTS

MATERIAL	ALUMINIUM (AL)	O-RING SEALS	NYLON	NICKEL- PLATED BRASS	97/23/CE
GAS					
Compressed air	A	A	A	A	K
Vacuum	A	A	A	A	K
Nitrogen	A	A	A	A	K
Carbon dioxide	A	A	A	A	K
Argon	A	A	A	A	K
Argon - Nitrogen Mixture	A	A	A	A	K
Argon-Carbon Dioxide Mixture	A	A	A	A	K
Oxygen	D	C	A	A	
Dry Chlorine	A	D	D	C	
Sulphidric Acid	A	D	A	C	
Dry Sulphur Dioxide	A	D	C	A	
ORGANIC AND CHEMICAL COMPOUNDS					
Mineral engine oil	A	A	B	A	K
Synthetic motor oil	A	A	B	A	K
Exhausted engine oil	A	A	B	A	K
Oil emulsion 3% for metalworking	A	A	A	A	K
Oil emulsion 8% for metalworking	A	A	A	A	K
Glycol	A	A	B	A	K
Glycol and water mixture	A	A	A	A	K
Windscreen washing fluid	B	D	B	D	
Ammonia solution	A	B	B	C	
Methyl alcohol	B	B	B	C	
Vinilic glue	A	A	A	A	
Ethanol	A	A	B	A	K
Formalin	A	A	B	A	K
Acetone	A	D	A	A	K
Aniline	C	D	C	A	
Potassium bicarbonate	D	B	B	A	
Potassium permanganate	A	B	D	A	
Benzene	A	D	B	A	
Gasoline	A	B	B	A	K
Diesel fuel	A	A	B	A	K
ACIDS					
Citric acid	B	A	B	C	
Boric acid	B	A	B	C	
Acetic acid	B	C	D	C	
Cloridric acid	C	D	D	D	
Oleic acid	B	C	B	D	
Nitric acid	C	D	D	C	
Tartaric acid	A	A	B	C	K
Phosphoric acid	D	D	D	D	
Sulfuric acid	D	D	D	D	

Legend: A = Very good; B = Good; C = Low; D = Poor; K= KIWA PED

**Attention:** the content of this table is based upon customer's inquiries forwarded by customers during past 20 years. It is always recommended to evaluate the PED 97/23 directive and consider norms and laws applicable.

PED = 97/23/CE, annexe III, E1 compliant - CE 0620 - KIWA.

In the eventually of any doubt, please contact Teseco's Technical Office.

## CONDITIONS FOR THE TRANSPORTATION OF WATER IN THE HBS SYSTEM

The HBS product by Teseco is suitable to carry water provided that the following conditions are respected

- Softened water is to be avoided because of its richness in sodium ions.
- The acidity must range between pH5 and pH8.
- The maximum content of chlorine ions must not exceed 2000 mg/L.
- Iron (Fe), nickel (ni), lead (pb) and Tin (Sn) must not be present.
- The maximum Copper (Cu) content should be not exceed 0,05 mg/L; the maximum Mercury (Hg) content should not exceed 0,005 mg/L.
- Aluminium must not be in direct contact with iron or Copper. aluminium and iron must be insulated by galvanization while aluminium and Copper must be insulated with plastic or inert organic matter.
- Oxygen, Carbon Dioxide and ammonia ions, dissolved in water do not cause corrosive effects.
- Water with solution of emulsion oil for the cooling of machinery does not cause any problems.
- We recommend electrical earth bonding of our pipework systems in order to avoid any stray currents
- We recommend the use of ANODIZED bars

In the event of any doubt, please contact Teseco's Technical office.

Source: AQM, technical services S-I-NAL Accredited (UNI CEI EN 45001).