

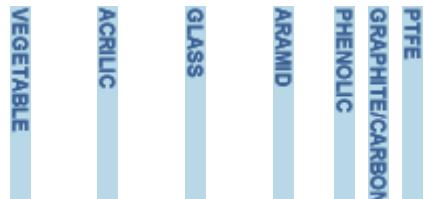
**Mechanical Packings MONTERO® for Pumps and Valves >>> GLAND PACKINGS CHEMICAL RESISTANCE CHART**

		A   B   C   D   E   F   G   H   I   K   L   M   N   O   P   R   S   T   U   V   W   X	VEGETABLE	ACRILIC	GLASS	ARAMID	PHENOLIC	PTFE	GRAPHITE/CARBON
Acetaldehyde	CH <sub>3</sub> CHO	C	C	C	C	B A A			
Acetic acid 100%	CH <sub>3</sub> COOH	C	C	C	C	B A A			
Acetic Ethyl Ester	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	C	C	C	C	B A A			
Acetone	CH <sub>3</sub> COCH <sub>3</sub>	C	A	A	A	A A A A			
Acetylene	C <sub>2</sub> H <sub>2</sub>	A	A	A	A	A A A A			
Acrylic Acid		C	C	C	A	A A A A			
Acrylonitrile		C	B	A	A	A A A A			
Air		A	A	A	A	A A A A			
Alkaline Lye		C	C	C	B	B A A			
Alum	KAl (SO <sub>4</sub> ) <sub>2</sub>	C	C	C	A	A A A A			
Aluminium chloride	AlCl <sub>3</sub>	C	A	A	B	A A A A			
Ammonia Gas		B	A	A	A	A A A A			
Ammonia	NH <sub>3</sub>	C	A	A	A	A A A A			
Amyl acetate	CH <sub>3</sub> COOC <sub>5</sub> H <sub>11</sub>	A	A	A	A	A A A A			
Amyl Alcohol		A	A	A	A	A A A A			
Aniline		C	C	A	A	A A A A			
Aqua-Regia		C	C	C	C	C C A			
Aviation Fuel (kerosene)		A	A	A	A	A A A A			

		A   B   C   D   E   F   G   H   I   K   L   M   N   O   P   R   S   T   U   V   W   X	VEGETABLE	ACRILIC	GLASS	ARAMID	PHENOLIC	PTFE	GRAPHITE/CARBON
Barium chloride	BaCl <sub>2</sub>	A	A	A	A	A A A A			
Beer		A	A	A	A	A A A A			
Benzene (Benzol)	C <sub>6</sub> H <sub>6</sub>	B	A	A	A	A A A A			
Benzoic acid	C <sub>6</sub> H <sub>5</sub> COOH	C	C	C	C	C A A A			
Benzoyl Chloride		C	C	A	A	A A A A			
Biphenyl		C	C	A	A	A A A A			
Blast Furnace Gas		C	C	A	A	A A A A			
Bleach(Solution)		B	A	B	A	A A A A			
Boiler feed water (alkaline)		A	A	A	A	A A A A			
Borax	Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10(H <sub>2</sub> O) <sub>10</sub>	C	C	B	A	A A A A			
Boric Acid	H <sub>3</sub> BO <sub>3</sub>	C	C	C	A	A A A A			

Brine		A	A	A	A	A A A
Bromine		C	C	C	C	C C A
Butane	$C_4H_{10}$	B	B	B	A	A A A
Butanone(M.E.K.)		C	C	C	C	B A A
Butyl acetate	$CH_3COOC_4H_9$	A	A	A	A	A A A
Butyl alcohol (butanol)	$C_4H_9OH$	A	A	A	A	A A A
Butyric acid	$C_3H_7COOH$	A	A	A	A	A A A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X



Calcium Chlorate		C	C	A	B	A A A
Calcium Chloride	$CaCl_2$	C	C	C	A	A A A
Calcium hydroxide (lime water)	$Ca(OH)_2$	C	C	C	A	A A A
Calcium hypochlorite	$Ca(OCl)_2$	C	C	C	B	B B A
Caprolactam		C	A	A	A	A A A
Carbolic Acid		C	C	A	A	A A A
Carbon dioxide	$CO_2$	A	A	A	A	A A A
Carbon disulfide	$CS_2$	C	C	A	C	B A A
Carbon Monoxide		A	A	A	A	A A A
Carbon tetrachloride	$CCl_4$	C	A	A	A	A A A
Castor oil		C	B	A	A	A A A
Chile Saltpetre		A	A	A	A	A A A
Chlorine (dry)	$Cl_2$	C	A	A	C	B A A
Chlorine (wet)	$Cl_2$	C	A	A	C	B A A
Chlorinated Hydrocarbons		B	A	A	A	A A A
Cloroacetic Acid		C	C	C	B	B A A
Clorobencene		C	A	A	A	A A A
Chloroform	$CHCl_3$	C	C	C	C	C A A
Chromic acid	$H_2CrO_4$	C	C	C	C	C B A
Citric acid	$C_4H_8O_7$	B	B	B	A	A A A
Copper Sulphate	$CuSO_4$	A	A	A	A	A A A
Creosote		C	C	A	A	A A A
Cresol	$C_6H_4(OH)CH_4$	C	C	A	A	A A A
Crude Oil		B	A	A	A	A A A
Cyclohexanol	$C_6H_{11}OH$	A	A	A	A	A A A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

					PTFE
					GRAPHITE/CARBON
					PHENOLIC
Dichlorobencene		C	B	A	A A A A
Diesel oil		B	A	A	A A A A
Dimethyl formamide	HCON(CH <sub>3</sub> ) <sub>2</sub>	C	C	C	B B A A
Diphyl (Dowtherm A)		C	C	C	C C A A
Dowtherm		C	C	A	A A A A
Dyeliquor (alkaline, neutral, a		C	A	C	B B A A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

					PTFE
					GRAPHITE/CARBON
					PHENOLIC
Ethane	C <sub>2</sub> H <sub>6</sub>	A	A	A	A A A A
Ethyl acetate	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>	C	A	A	A A A A
Ethyl alcohol (ethanol)	C <sub>2</sub> H <sub>5</sub> OH	A	A	A	A A A A
Ethylene		A	A	A	A A A A
Ethyl chloride	C <sub>2</sub> H <sub>5</sub> Cl	C	B	B	A A A A
Ethylene chloride	(CH <sub>2</sub> Cl) <sub>2</sub>	C	A	A	A A A A
Ethylene glycol	(CH <sub>2</sub> OH) <sub>2</sub>	A	A	A	A A A A
Ethylene Oxide		C	B	A	A A A A
Ethyl ether	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	A	A	A	A A A A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

					PTFE
					GRAPHITE/CARBON
					PHENOLIC
Fatty Acids		A	A	A	A A A A
Ferric Chloride		B	A	A	A A A A
Fluorine		C	C	C	C C B C
Fluorosilicic Acid		C	C	C	A A A A
Formaldehyde	HCHO	B	B	A	A A A A
Formic acid 65%		B	A	A	A A A A
Formic acid 10%	HCOOH	C	C	B	B B A A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

		VEGETABLE	ACRILIC	GLASS	ARAMD	PTFE	GRAPHITE/CARBON	PHENOLIC
Gas Oil		B	A	A	A	A A A		
Gasoline		A	A	A	A	A A A		
Glucose		A	A	A	A	A A A		
Glycerine	(CH <sub>2</sub> OH) <sub>2</sub> CHOH	B	A	A	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

		VEGETABLE	ACRILIC	GLASS	ARAMD	PTFE	GRAPHITE/CARBON	PHENOLIC
Heating oil		A	A	A	A	A A A		
Heptane	C <sub>7</sub> H <sub>16</sub>	C	B	B	A	A A A		
Hydraulic oil (Glycol)		A	A	A	A	A A A		
Hydraulic oil (mineral)		A	A	A	A	A A A		
Hydraulic oil (phosphate ester)		B	A	A	A	A A A		
Hydrazine		C	B	A	A	A A A		
Hydrocarbons (Aromatic)		C	A	A	A	A A A		
Hydrocarbons (Aliphatic S)		B	A	A	A	A A A		
Hydrocarbons (Aliphatic U)		B	A	A	A	A A A		
Hydrochloric Acid 37%	HCl	C	C	B	C	B A A		
Hydrofluoric Acid 10%	HFl	C	C	B	C	B A C		
Hydrofluoric Acid		C	C	C	C	C A A		
Hydrogen	H <sub>2</sub>	A	A	A	A	A A A		
Hydrogen chloride (dry)	HCl	C	B	B	C	B A A		
Hydrogen Fluoride		C	C	C	C	C A A		
Hydrogen peroxide (up to 6%)		C	C	B	C	A B A		
Hydrogen Sulphide		C	B	B	C	B A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

		VEGETABLE	ACRILIC	GLASS	ARAMD	PTFE	GRAPHITE/CARBON	PHENOLIC
Iso-octane	(CH <sub>3</sub> ) <sub>3</sub> CCH <sub>2</sub> (CH <sub>3</sub> ) <sub>2</sub>	B	A	A	A	A A A		
Isopropyl Acetate		A	A	A	A	A A A		
Isopropyl Alcohol	(CH <sub>3</sub> ) <sub>2</sub> CHOH	A	A	A	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Kerosene (Paraffin)	B	B	B	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

Lactic acid 50%	CH <sub>3</sub> CHOHCOOH	B	B	B	A	A A A	
Lime (Quick)		C	A	A	A	A A A	
Linseed oil		B	A	A	A	A A A	
Lubricating Oil		B	A	A	A	A A A	

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

Machine Oil		B	A	A	A	A A A	
Magnesium sulphate	MgSO <sub>4</sub>	A	A	A	A	A A A	
Malic acid	C <sub>4</sub> H <sub>6</sub> O <sub>5</sub>	B	A	A	A	A A A	
Methane	CH <sub>4</sub>	A	A	A	A	A A A	
Methyl Acrylate		C	C	A	A	A A A	
Methyl alcohol	CH <sub>3</sub> OH	A	A	A	A	A A A	
Methyl Isobutyl Ketone		B	A	A	A	A A A	
Methyl Methacrylate		B	C	A	A	A A A	
Methylene chloride	CH <sub>2</sub> Cl <sub>2</sub>	C	A	A	C	A A A	
Metil Oil		B	A	A	A	A A A	
Mineral oil- ASTM No. 1		B	A	A	A	A A A	
Mobiltherm		C	C	A	A	A A A	

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

Naphthalene		A	A	A	A	A A A	
Natural Gas		A	A	A	A	A A A	
Nitric acid 20%	HNO <sub>3</sub>	C	C	C	C	C A A	
Nitric acid 40%	HNO <sub>3</sub>	C	C	C	C	C A A	

Nitric acid 50%	HNO <sub>3</sub>	C	C	C	C	C	C	A
Nitric acid 96%	HNO <sub>3</sub>	C	C	C	C	C	C	A
Nitrogen	N <sub>2</sub>	A	A	A	A	A	A	A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE
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Octane	C <sub>8</sub> H <sub>18</sub>	C	C	C	B	B	A	A
Oleum		C	C	C	C	C	C	A
Oleic acid	C <sub>17</sub> H <sub>33</sub> COOH	C	C	C	B	B	A	A
Oxigen		C	C	A	A	A	A	A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE
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Palmitic acid	C <sub>15</sub> H <sub>31</sub> COOH	B	A	A	A	A	A	A
Paraffin		A	A	A	A	A	A	A
Pentane	C <sub>5</sub> H <sub>12</sub>	A	A	A	A	A	A	A
Perchloroethylene	C <sub>2</sub> Cl <sub>4</sub>	C	C	C	B	B	A	A
Pentachlorophenol		C	C	C	C	B	A	A
Perchloric Acid		C	C	C	C	C	C	A
Petrol		A	A	A	A	A	A	A
Phenol	C <sub>6</sub> H <sub>5</sub> OH	A	C	B	C	B	A	A
Phosgene		C	C	A	A	A	A	A
Phosphoric acid (all conc)	H <sub>3</sub> PO <sub>4</sub>	C	C	C	C	C	C	A
Phthalic acid	C <sub>6</sub> H <sub>4</sub> (COOH) <sub>2</sub>	B	B	B	A	A	A	A
Phthalic Anhydride		C	B	A	A	A	A	A
Potassium hydroxide	KOH	C	B	C	B	B	A	A
Potassium hypochlorite	KClO	B	A	A	A	A	A	A
Potassium nitrate (saltpetre)	KNO <sub>3</sub>	A	A	A	A	A	A	A
Potassium permanganate	KMnO <sub>4</sub>	C	A	A	B	A	A	A
Producer gas (generator gas)		A	A	A	A	A	A	A
Propane	C <sub>3</sub> H <sub>8</sub>	B	A	A	A	A	A	A
Pyridine	C <sub>5</sub> H <sub>5</sub> N	C	C	A	A	A	A	A

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Rapeseed oil	A	A	A	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Sea water	A	A	A	A	A A A		
Silicone oil	A	A	A	A	A A A		
Soda Ash	A	B	C	A	A A A		
Sodium aluminate	Na <sub>3</sub> AlO <sub>3</sub>	B	A	A	A	A A A	
Sodium bicarbonate	NaHCO <sub>3</sub>	A	A	A	A	A A A	
Sodium bisulphite	NaHSO <sub>3</sub>	A	A	A	A	A A A	
Sodium carbonate		A	A	C	A	A A A	
Sodium chloride (salt)	NaCl	B	A	A	A	A A A	
Sodium Cyanide		A	A	A	A	A A A	
Sodium hydroxide	NaOH	C	C	C	B	B A A	
Sodium hydroxide (90%)	NaOH	C	C	C	C	C A A	
Sodium hydroxide (Dil)		C	B	B	B	B A A	
Sodium hypochlorite		B	B	B	A	A A A	
Sodium Nitrate		A	A	A	A	A A A	
Sodium silicate (water glass)	Na <sub>4</sub> SiO <sub>4</sub>	B	B	B	A	A A A	
Starch		A	A	A	A	A A A	
Steam	H <sub>2</sub> O	C	A	B	B	B A A	
Steam condensate		A	A	A	A	A A A	
Stearic acid	C <sub>17</sub> H <sub>35</sub> COOH	C	C	C	B	B A A	
Styrene		C	A	A	A	A A A	
Sulphur		B	B	A	A	A A A	
Sulphur dioxide	SO <sub>2</sub>	B	B	B	C	B A A	
Sulphur Trioxide		C	C	C	C	C C A	
Sulphuric acid (Conc)		C	C	C	C	C B A	
Sulphuric Acid (Fuming)		C	C	C	C	C C A	
Sulphuric acid 30%	H <sub>2</sub> SO <sub>4</sub>	C	C	C	C	C B A	
Sulphuric acid 50%	H <sub>2</sub> SO <sub>4</sub>	C	C	C	C	C B A	
Sulphuric acid 96%	H <sub>2</sub> SO <sub>4</sub>	C	C	C	C	C C A	
Sulphurous acid	H <sub>2</sub> SO <sub>3</sub>	C	C	C	B	B A A	

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

		VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Tar		C	C	A	A	A A A		
Tartaric acid	(CHOHCOOH) <sub>2</sub>	B	B	B	A	A A A		
Tetrachlorethane	C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	C	C	C	C	C A A		
Tetralin	C <sub>10</sub> H <sub>12</sub>	C	C	C	C	C A A		
Toluene	C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	C	A	A	A	A A A		
Town's gas		A	A	A	A	A A A		
Transformer oil		B	A	A	A	A A A		
Tributyl Phosphate		A	A	A	A	A A A		
Trichloroethylene	C <sub>2</sub> HCl <sub>3</sub>	C	C	C	C	C A A		
Triethanolamine		A	A	A	A	A A A		
Turpentine		A	A	A	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Urea	A	A	A	A	A A A		

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Vegetable Oil	A	A	A	A	A A A		
Vinyl acetate	CH <sub>3</sub> COOC <sub>2</sub> H <sub>3</sub>	C	B	B	A	A A A	
Vinyl Chloride		B	A	A	A	A A A	
Vinylidene Chloride		B	A	A	A	A A A	

A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X

	VEGETABLE	ACRILIC	GLASS	ARAMID	PTFE	GRAPHITE/CARBON	PHENOLIC
Water	H <sub>2</sub> O	A	A	A	A	A A A	
Water Condensate		A	A	A	A	A A A	
Water Distilled		C	A	A	A	A A A	
Whisky		A	A	A	A	A A A	
Wine		A	A	A	A	A A A	

White spirit

A A A A A A A

**A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | X**

Xylon (Xylene)

 $C_6H_4(CH_3)_2$ 

VEGETABLE	ACRILIC	GLASS	ARAMID	PHENOLIC	GRAPHITE/CARBON	PTFE
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A A A A A A A

**A: Suitable    B: Suitability depends on operating conditions    C: Not suitable**

FIBRAS Y ELASTOMEROS, S.A.

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