

ID dimensions are taken directly from the relevant fittings standards. FlowSmart's precision manufactured gaskets are designed and engineered to achieve a bacteria free, smooth bore transition when the fitting union is fully assembled and under clamping compression.

<b>FlowSmart PolyEnvelope Bonded Gasket</b>				
<b>Tube Size</b>	<b>Dimensions in Inches</b>		<b>Gasket Part Numbers by Material</b>	
	$\phi A$ OD	$\phi B$ Bore ID	<b>EPDM</b>	<b>VITON®</b>
1/2"	0.852	0.380	B40MPE-050-ENV	B40MPV-050-ENV
3/4"	0.852	0.620	B40MPE-075-ENV	B40MPV-075-ENV
1"	1.984	1.377	B40MPE-100-ENV	B40MPV-100-ENV
1-1/2"	1.984	0.877	B40MPE-150-ENV	B40MPV-150-ENV
2"	1.984	1.377	B40MPE-200-ENV	B40MPV-200-ENV
2-1/2"	2.515	1.877	B40MPE-250-ENV	B40MPV-250-ENV
3"	3.050	2.378	B40MPE-300-ENV	B40MPV-300-ENV
4"	3.579	2.878	B40MPE-400-ENV	B40MPV-400-ENV

Property	Test Method	Results
Specific Gravity	ASTM D4894-89a	2.165
Tensile Strength	ASTM D4894 DIN53455	4000 psi 6400 psi
Elongation @ Break	ASTM ASTM D4894 DIN53455	350% 430%
Compression Modulus	ASTM D695	84,000 psi
Compressive Strength @ 0.2% Offset	ASTM D695	1,590 psi
Compressive Strength @ 5% Strain	ASTM D695	2,620 psi
Hardness	ASTM D2240	69 Shore D
Bulk Density	ASTM D4894-89a	420
Deformation Under Load 2175 psi	ASTM D621 24 hours 100 hours Permanent	8 9 4

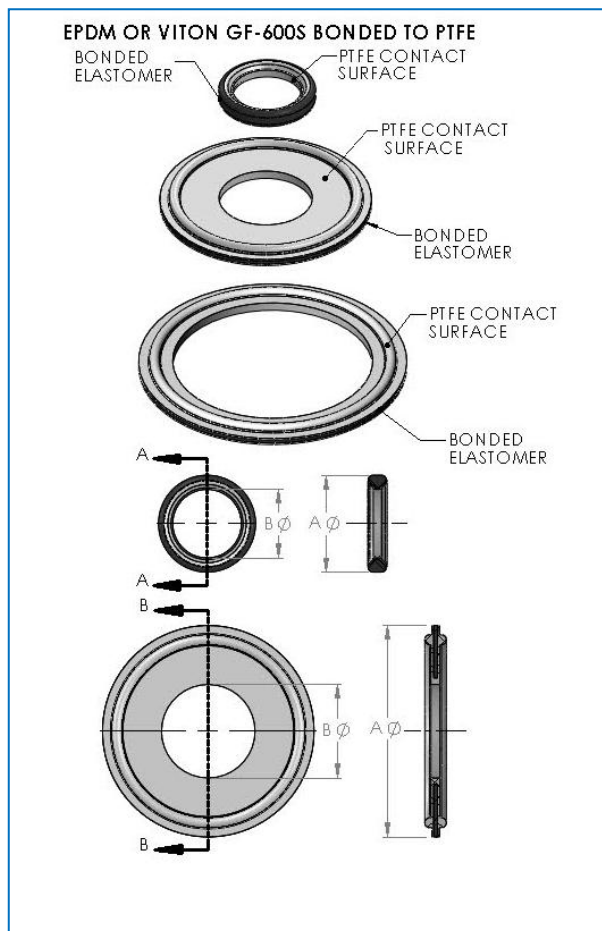
\* The preceding data gives the typical properties of the selected PolyEnvelope PTFE bonded to EPDM material. These are typical properties and should not be used for specification purposes. This information is based on our experience to date and we believe it to be reliable. It is intended to be used only as a guide at your discretion and risk. Flow Smart cannot guarantee favorable results and assumes no liability in connection with the use of this product. None of this information is to be taken as a license to operate under, or a recommendation to infringe any patents.

**Note:** The contact surface of FlowSmart's PolyEnvelope is attacked by some alkali metals (molten or in solution) and by some rare fluorinated compounds at high temperatures and pressures. Some organic and

Property	Test Method	PTFE Results	Affect on sanitary gasket:
Void Content	Test Method	0.75	Less void limit material pass through, entrapment and extends gasket life
Reduction Deformation Under Load	ASTM D621  100 hours @74F	11%	Reduction of deformation aids in the memory of a gasket material. The elastomer backing further improves memory.

halogenated solvents are absorbed causing small dimensional changes but the effects are physical and also reversible.

. It is the end user's responsibility to fully evaluate and test the fitness of the product for their specific application.



## Chart Codes

- R - Resistant
- LR - Limited Resistance
- NR - Not Recommended
- ND - No Data

Chemical	Resistance		
	20°C/68°F	60°C/140°F	100°C/212°F
Acetaldehyde	R	R	R
Acetic acid (10%)	R	R	R
Acetic acid (glac./anh.)	R	R	R
Acetic anhydride	R	R	R
Aceto-acetic ester	R	R	R
Acetone	R	R	R
Other ketones	R	R	R
Acetonitrile	R	R	R
Acetylene	R	R	R
Acetyl salicylic acid	R	R	R
Acid fumes	R	R	R
Alcohols	R	R	R
Aliphatic esters	R	R	R
Alkyl chlorides	ND	ND	ND
Alum	R	R	R
Aluminium chloride	R	R	R
Aluminium sulphate	R	R	R
Ammonia, anhydrous	R	R	R
Ammonia, aqueous	R	R	R
Ammonium chloride	R	R	R
Amyl acetate	R	R	R
Aniline	R	R	R
Antimony trichloride	ND	ND	ND
Aqua regia	R	R	R
Aromatic solvents	R	R	R
Ascorbic acid	R	R	R

Beer	R	R	R
Benzaldehyde	R	R	R
Benzene	R	R	R
Benzoic acid	R	R	R
Benzoyl peroxide	R	R	R
Boric acid	R	R	R
Brines, saturated	R	R	R
Bromide (K) solution	R	R	R
Bromine	R	R	R
Bromine liquid, tech.	R	R	R
Bromine water, saturated aqueous	R	R	R
Butyl acetate	R	R	R
Calcium chloride	R	R	R
Carbon disulphide	R	R	R
Carbonic acid	R	R	R
Carbon tetrachloride	R	R	R
Caustic soda & potash	R	R	R
Cellulose paint	R	R	R
Chlorates of Na, K, Ba	R	R	R
Chlorine, dry	R	R	R
Chlorine, wet	R	R	R
Chlorides of Na, K, Ba	R	R	R
Chloroacetic acid	R	R	R
Chlorobenzene	R	R	R
Chloroform	R	R	R
Chlorosulphonic acid	R	R	R
Chromic acid (80%)	R	R	R
Citric acid	R	R	R
Copper salts (most)	R	R	R
Cresylic acids (50%)	R	R	R
Cyclohexane	R	R	R
Detergents, synthetic	R	R	R

Emulsifiers, concentrated	R	R	R
Ether	R	R	R
Fatty acids (>C6)	R	R	R
Ferric chloride	R	R	R
Ferrous sulphate	R	R	R
Fluorinated refrigerants	R	R	R
Fluorine, dry	R	R	<b>NR</b>
Fluorine, wet	ND	ND	ND
Fluorosilic acid	ND	ND	ND
Formaldehyde (40%)	R	R	R
Formic acid	R	R	R
Fruit juices	R	R	R
Gelatine	R	R	R
Glycerine	R	R	R
Glycols	R	R	R
Glycol, ethylene	R	R	R
Glycolic acid	R	R	R
Hexamethylene diamine	R	R	R
Hexamine	R	R	R
Hydrazine	R	R	R
Hydrobromic acid (50%)	R	R	R
Hydrochloric acid (10%)	R	R	R
Hydrochloric acid (conc.)	R	R	R
Hydrocyanic acid	R	R	R
Hydrofluoric acid (40%)	R	R	R
Hydrofluoric acid (75%)	R	R	R
Hydrogen peroxide (30%)	R	R	R
Hydrogen peroxide (30 - 90%)	R	R	R
Hydrogen sulphide	R	R	R
Hypochlorites	R	R	R
Hypochlorites (Na 12-14%)	R	R	R
Iso-butyl-acetate	R	R	R
Lactic acid (90%)	R	R	R
Lead acetate	R	R	R

Lead perchlorate	ND	ND	ND
Lime (CaO)	R	R	R
Maleic acid	R	R	R
Manganate, potassium (K)	R	R	R
Meat juices	R	R	R
Mercuric chloride	R	R	R
Mercury	R	R	R
Methanol	R	R	R
Methylene chloride	R	R	R
Milk products	R	R	R
Moist air	R	R	R
Molasses	R	R	R
Monoethanolamine	R	R	<b>NR</b>
Naptha	R	R	R
Napthalene	R	R	R
Nickel salts	R	R	R
Nitrates of Na, K and NH3	R	R	R
Nitric acid (<25%)	R	R	R
Nitric acid (50%)	R	R	R
Nitric acid (90%)	R	R	R
Nitric acid (fuming)	R	R	R
Nitrite (Na)	R	R	R
Nitrobenzene	R	R	R
Oils, diesel	R	R	R
Oils, essential	R	R	R
Oils, lubricating + aromatic additives	R	R	R
Oils, mineral	R	R	R
Oils, vegetable and animal	R	R	R
Oxalic acid	R	R	R
Ozone	R	R	R
Paraffin wax	R	R	R
Perchloric acid	R	R	R
Petroleum spirits	R	R	ND
Phenol	R	R	R
Phosphoric acid (20%)	R	R	R
Phosphoric acid	R	R	R

(50%)			
Phosphoric acid (95%)	R	R	R
Phosphorous chlorides	R	R	R
Phosphorous pentoxide	ND	ND	ND
Phthalic acid	R	R	R
Picric acid	R	R	R
Pyridine	R	R	R
Salicyl aldehyde	R	R	R
Sea water	R	R	R
Silicic acid	R	R	R
Silicone fluids	R	R	R
Silver nitrate	R	R	R
Sodium carbonate	R	R	R
Sodium peroxide	R	R	R
Sodium silicate	R	R	R
Sodium sulphide	R	R	R
Stannic chloride	R	R	R
Starch	R	R	R
Sugar, syrups & jams	R	R	R
Sulphamic acid	ND	ND	ND
Sulphates (Na, K, Mg, Ca)	R	R	R
Sulphites	R	R	R
Sulphonic acids	R	R	R
Sulphur	R	R	R
Sulphur dioxide, dry	R	R	R
Sulphur dioxide, wet	R	R	R
Sulphur dioxide (96%)	R	R	R
Sulphur trioxide	R	R	R
Sulphuric acid (<50%)	R	R	R
Sulphuric acid (70%)	R	R	R
Sulphuric acid (95%)	R	R	R
Sulphuric acid, fuming	R	R	R
Sulphur chlorides	R	R	R
Tallow	R	R	R





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Tannic acid (10%)	R	R	R
Tartaric acid	R	R	R
Trichlorethylene	R	R	R
Urea (30%)	R	R	R
Vinegar	R	R	R
Water, distilled.	R	R	R
Water, soft	R	R	R
Water, hard	R	R	R
Wetting agents (<5%)	R	R	R
Yeast	R	R	R
Zinc chloride	R	R	R