

# Gasket Selection Guide



## GASKET CONSTRUCTION

The grooved piping concept is simple and reliable. The coupling housing performs several functions as an integral part of the pipe joint. It contains the gasket, which is fully enclosed, reinforcing and securing it in position for proper sealing. The housing also engages on the pipe around the full pipe circumference and creates a unified joint while providing the advantages of mechanical joining.

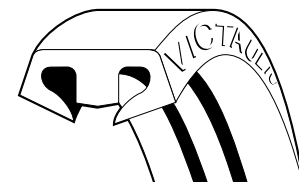
The sealing efficiency of Victaulic gaskets is such that the gasket forms an initial seal as it is stretched over the pipe ends. As the housing segments are tightened, the resilient elastomeric gasket conforms to the internal cavity of the housing, further enhancing the gasket's seal against the pipe, both in pressure and vacuum conditions. The Victaulic gasket is pressure responsive, providing increased sealing action as the internal pressure is increased. The combination of these characteristics creates a permanent, leak-tight triple seal on a variety of piping materials including steel, stainless steel, aluminum, PVC, ductile iron and copper.

The gasket is molded to fit the internal cavity of the housing. Upon placement of the housing around the gasket and into the grooves, the gasket is positioned.

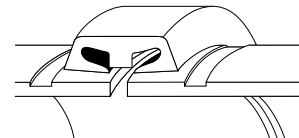
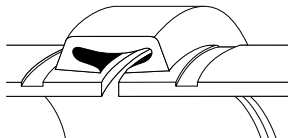
### UNIQUE PRESSURE RESPONSIVE GASKET FORMS A TRIPLE SEAL



C-SHAPED GASKET



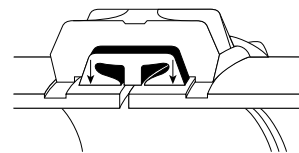
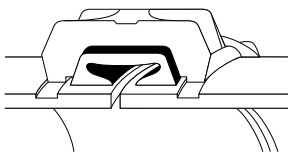
FLUSHSEAL® GASKET



SEALS BETWEEN THE PIPE ENDS AND THE GROOVE.

The gasket is then slightly compressed as the housings are tightened to secure the gasket lips in a firm seat on the pipe, between the grooves and the pipe ends.

Line pressure serves to strengthen the seal through the combination of normal gasket resilience, housing reinforcement and the action of pressure downward on the lips.



SEAL IS ENHANCED BY PRESSURE OR VACUUM IN THE LINE

**JOB/OWNER**

System No. \_\_\_\_\_

Location \_\_\_\_\_

**CONTRACTOR**

Submitted By \_\_\_\_\_

Date \_\_\_\_\_

**ENGINEER**

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_

Approved \_\_\_\_\_

Date \_\_\_\_\_

## Gasket Selection Guide

### GASKET/O-RING DATA

Victaulic offers a variety of synthetic rubber gaskets/o-rings to provide the option of grooved piping products for the widest range of applications. To assure the maximum life for the service intended, proper gasket selection and specification in ordering is essential.

Many factors must be considered in determining the optimum gasket/o-ring for a specific service. The foremost consideration is temperature, along with concentration of product, duration of service and continuity of service. Temperatures beyond the recommended limits have a degrading effect on the polymer. Therefore, there is a direct relationship between temperature, continuity of service and gasket life.

Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets/o-rings are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide for specific service recommendations and for a listing of services which are not recommended.

Gasket recommendations apply only to Victaulic gaskets and o-rings. Recommendations for a particular service do not necessarily imply compatibility of the coupling housing, related fittings or other components for the same service.

These recommendations do not apply to rubber-lined or rubber seal valves or other rubber-lined products. Refer to Valve Materials Selection in Section 08.02 or contact Victaulic for recommendations.

Victaulic gaskets are clearly marked as part of the mold with the gasket size, style and compound for easy identification.

#### Potable Water

Grade "E" EPDM, Grade "E" Vic-Plus™, Grade "EHP" and Grade "EHP" Vic-Plus gaskets were submitted to Underwriters' Laboratories Inc. for evaluation in potable water applications. EPDM material was tested to the requirements of ANSI/NSF 61 (Drinking Water System Components - Health Effects). Successful completion of this testing allows us to state that our EPDM gasket material is UL classified in accordance with ANSI/NSF 61 for cold (+86°F/+30°C) and hot (+180°F/+82°C) potable water service.

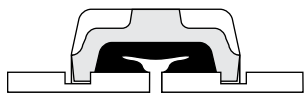
Similarly our Grade "M" halogenated butyl gasket material (which is typically used with our AWWA sized products) has also been UL classified in accordance with ANSI/NSF 61 for cold (+86°F/+30°C) potable water service.

The data provided is intended for use as an aid to qualified designers when products are installed in accordance with the latest available Victaulic product line.

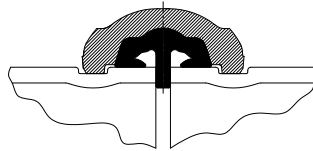
# Gasket Selection Guide

## Gasket Styles

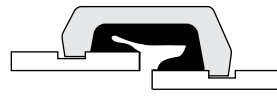
ILLUSTRATIONS EXAGGERATED FOR CLARITY



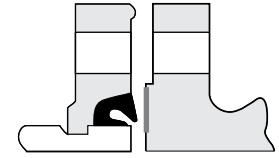
Standard



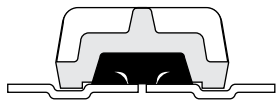
Installation-Ready



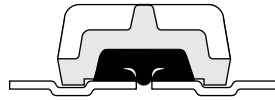
Reducing



Vic-Flange



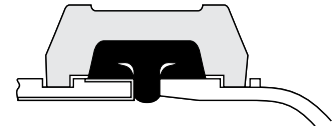
FlushSeal



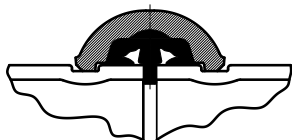
Grooved Copper Tubing with FlushSeal Gasket



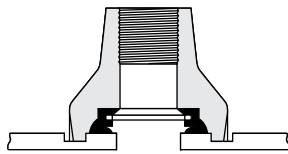
Advanced Groove System (AGS)



EndSeal



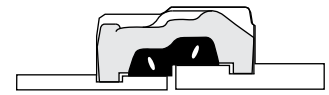
FireLock EZ



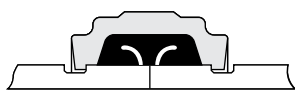
Outlet



Mechanical-T



IPS to AWWA Transition



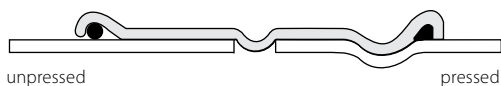
AWWA FlushSeal



Plain End



Plain End Piping System for HDPE Pipe



Pressfit Piping System for Stainless Steel

# Gasket Selection Guide

## GASKET SELECTION GUIDE

**⚠ WARNING**

- To assure maximum life for the service intended, proper gasket selection and specification in ordering is essential. For specific chemical and temperature compatibility, refer to the Gasket Selection and Chemical Services sections. The information shown defines general ranges for all compatible fluids.

Failure to select the proper rubber compound may result in personal injury or property damage, improper installation, joint leakage or joint failure.

## STANDARD GASKETS IPS

Grade	* Temp. Range	Compound	Color Code	General Service Recommendations
<b>E</b>	-30°F to +230°F -34°C to +110°C	EPDM	Green Stripe	Recommended for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. <b>NOT RECOMMENDED FOR PETROLEUM SERVICES.</b>
<b>EHP<sup>@</sup></b>	-30°F to +250°F -34°C to +120°C	EPDM	Red & Green Stripe	Recommended for hot water service within the specified temperature range. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. <b>NOT RECOMMENDED FOR PETROLEUM SERVICES</b>
<b>T</b>	-20°F to +180°F -29°C to +82°C	Nitrile	Orange Stripe	Recommended for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range; not recommended for hot dry air over +140°F/+60°C and water over +150°F/+66°C. <b>NOT RECOMMENDED FOR HOT WATER SERVICES.</b>
<b>E<sup>†</sup></b> (Type A)	Ambient	EPDM	Violet Stripe	Applicable for wet and dry (oil-free air) sprinkler services only. For dry services, Victaulic continues to recommend the use of FlushSeal <sup>®</sup> gaskets. <b>NOT RECOMMENDED FOR HOT WATER SERVICES.</b>

† Vic-Plus gasket.

\* For specific chemical and temperature compatibility, refer to the Gasket Selection and Chemical Services sections. The information shown defines general ranges for all compatible fluids.

@ The Grade EHP gasket is only available on Style 107, 607 and 177 couplings.

# Gasket Selection Guide

**SPECIAL GASKETS  
IPS**

Grade	* Temp. Range	Compound	Color Code	General Service Recommendations
<b>M2</b>	-40°F to +160°F -40° C to +71° C	Epichlorohydrin	White Stripe	Specially compounded to provide superior service for common aromatic fuels at low temperatures. Also suitable for certain ambient temperature water services.
<b>V</b>	-30°F to +180°F -34° C to +82° C	Neoprene	Yellow Stripe	Recommended for hot lubricating oils and certain chemicals. Good oxidation resistance. Will not support combustion.
<b>O</b>	+20°F to +300°F -7° C to +149° C	Fluoro-elastomer	Blue Stripe	Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons. <b>NOT RECOMMENDED FOR HOT WATER SERVICES.</b>
<b>L</b>	-30°F to +350°F -34° C to +177° C	Silicone	Red Gasket	Recommended for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical services.
<b>A</b>	+20°F to +180°F -7° C to +82° C	White Nitrile	White Gasket	No carbon black content. May be used for food. Meets FDA requirements. Conforms to CFR Title 21 Part 177.2600. Not recommended for hot water services over +150°F/+66°C or for hot, dry air over +140°F/+60°C. <b>NOT RECOMMENDED FOR HOT WATER SERVICES.</b>
<b>T</b> EndSeal	-20°F to +150°F -29° C to +66° C	Nitrile	No External Identification	Specially compounded with excellent oil resistance and a high modulus for resistance to extrusion. Temperature Range -20°F/-29°C to +150°F/+66°C. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. <b>Not recommended for hot water services over +150°F/+66°C or for hot, dry air over +140°F/+60°C.</b> For maximum gasket life under pressure extremes, temperature should be limited to +120°F/+49°C.
<b>EF</b>	-30°F to +230°F -34°C to +110°C	EPDM	Green X	Recommended for hot and cold water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. Also meets hot and cold potable water requirements per DVGW, KTW, ÖVGW, SVGW, and French ACS (Crecep), approved for W534, approved for EN681-1 Type WA cold potable, and Type WB hot potable water service. <b>NOT RECOMMENDED FOR PETROLEUM SERVICES</b>
<b>EW</b>	-30°F to +230°F -34°C to +110°C	EPDM	Green W	Recommended for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. WRAS-approved material to BS 6920 for cold and hot potable water service up to +149°F/+65°C. <b>NOT RECOMMENDED FOR PETROLEUM SERVICES</b>

# Gasket Selection Guide

## AWWA COUPLING GASKETS

Grade	* Temp. Range	Compound	Color Code	General Service Recommendations
<b>S</b>	-20° F to +180°F -29° C to +82° C	Nitrile	Orange Stripe	Specially compounded to conform to ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; not recommended for hot dry air over +140°F/+60°C and water over +150°F/+66°C. <b>NOT RECOMMENDED FOR HOT WATER SERVICES.</b>
<b>M</b>	-20°F to +200°F -29° C to +93° C	Halogenated Butyl	Brown Stripe	Recommended for water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. Readily conforms to ductile pipe surfaces. UL classified in accordance with ANSI/NSF 61 for cold +86°F/+30°C potable water service. <b>NOT RECOMMENDED FOR PETROLEUM SERVICES.</b>

\* For specific chemical and temperature compatibility, refer to the Gasket Selection and Chemical Services sections. The information shown defines general ranges for all compatible fluids.

# Gasket Selection Guide

## GASKET SELECTION

Chemical compositions are listed in alphabetical order. **Unless otherwise noted, temperatures are ambient.** For chemicals or combinations not listed contact Victaulic for recommendations. **DO NOT ASSUME THAT A SERVICE SIMILAR TO THE ONE LISTED CAN BE ACCOMMODATED WITH THE SAME GASKET.**

The data and recommendations presented are based upon the best information available resulting from our field experience and laboratory testing by our own Engineering Department. In addition, we have incorporated the recommendations supplied by prime producers of basic copolymer materials and information furnished by leading molders of rubber products.

The information presented in this guide is general in scope and should be used only with this full knowledge and understanding. In unusual, critical or severe services, full information should be referred to Victaulic.

Where possible, materials should be subjected to simulated service conditions to determine their suitability for the service intended. Furthermore, it should not be concluded that, in instances where a liner is not affected by several substances used alone, their combination will have no reaction on the liner. Caution should be exercised with explosive, inflammable or toxic fluids. All gasket recommendations are based on pressure and temperature limitations published by Victaulic. Borderline services always should be verified by Victaulic.

Where two gaskets are shown under Gasket Grade, both are acceptable under normal conditions for the service listed.

Rating Code Key	
<b>G</b>	<b>Good</b>
<b>C</b>	<b>Conditional</b> (Submit analysis of materials to Victaulic for positive recommendations)
<b>NR</b>	<b>Not Recommended</b> (See pg.171 for complete listing)

**For services not listed contact Victaulic for recommendations.**

Gasket recommendations apply only to Victaulic gaskets. Recommendation for a particular service does not necessarily imply compatibility of the coupling housing, related fittings or other components for the same service. These recommendations do not apply to rubber lined valves.

# Gasket Selection Guide

## Chemical Services

Chemical Composition	Rating Code	Gasket Grade	Chemical Composition	Rating Code	Gasket Grade	Chemical Composition	Rating Code	Gasket Grade	Chemical Composition	Rating Code	Gasket Grade
ASTM #3 Oil	G	T	Barium Sulfide	G	T	Chloroacetic Acid	G	E	Ferric Nitrate	G	V
Acetaldehyde	G	E	Beer	G	A	Chloroacetone	G	E	Ferric Sulfate	G	T
Acetamide	G	T	Beet Sugar Liquors	G	A	Chlorobenzene	C	O	Ferrus Ammonium Sulfate to 30%	G	V
Acetic Acid up to 10% 100°F/38°C	G	E	Benzaldehyde	C	E	Chlorobromomethane	NR	—	Fish Oils	G	A
Acetic Acid up to 10-50% 100°F/38°C	G	L	Benzene	G	O	Chloroform	G	O	Fluoric Acid	G	E
Acetic Acid, Glacial 100°F/38°C	G	L	Benzene Sulfonic (Aromatic Acid)	C	V	Chlorosulphonic Acid	NR	—	Fluorine Gas, Wet	NR	—
Acetic Anhydride	G	E	Benzene (see Petroleum Ether)	G	O	Chrome Alum	G	T	Fluorosilicic Acid	G	V
Acetone	G	E	Benzoic Acid	G	E	Chrome Plating Solutions	G	O	Fly Ash	G	E
Acetonitrile	G	T	Benzol	G	O	Chromic Acid, to 25%	G	O	Foam	G	E
Acetophenone	G	E	Benzyl Alcohol	G	E	Citric Acid	G	E	Fog Oil	G	T
Acetylene	C	E/T	Benzyl Benzoate	G	E	Cocoonut Oil	G	A	Formaldehyde	G	E/T
Acrylic Resin	G	V	Black Sulfate Liquor	G	T	Cod Liver Oil	G	A	Formamide	G	T
Acrylonitrile	NR	—	Blast Furnace Gas	C	T	Coke Oven Gas	G	T/O	Formic Acid	G	E
Adipic Acid	G	T	Bleach, 12% Active Cl <sub>2</sub>	C	E	Copper Chloride	G	T	Freon 11, 130°F/54°C	G	T
Alkalis	G	E	Borax	G	E	Copper Cyanide	G	T	Freon 12, 130°F/54°C	G	T
Allyl Alcohol to 96%	G	E	Bordeaux Mixture	G	E	Copper Fluoride	G	E	Freon 21	NR	—
Allyl Chloride	NR	—	Boric Acid	G	E/T	Copper Nitrate	G	E/T	Freon 22, 130°F/54°C	G	V
Alum Sulfuric Acid	C	O	Bromine	G	O	Copper Sulfate	G	E/T	Freon 113 130°F/54°C	G	T
Alums	G	E/T	Bromine Water	G	V	Corn Oil	G	A	Freon 114,130°F/54°C	G	T
Aluminum Chloride	G	E/T	Butadiene	C	V	Cotton Seed Oil	G	A	Freon 123	NR	—
Aluminum Fluoride	G	E/T	Butane Gas	C	T	Creosol, Cresylic Acid	G	O	Freon 134a,176°/80°C	G	E/T
Aluminum Hydroxide	G	E	Butanol (see Butyl Alcohol)	G	E/T	Creosote, Coal Tar	G	O	Fructose	G	T
Aluminum Nitrate	G	VE/T	Butter	G	A	Creosote, Wood	G	O	Fuel Oil	G	T
Aluminum Oxychloride	C	T	Butyl Acetate	C	E	Cupric Fluoride	G	T	Fumaric Acid	G	E
Aluminum Phosphate	G	E	Butyl Acetyl Ricinoleate	G	E	Cupric Sulfate	G	T	Furan	NR	—
Aluminum Salts	G	E	Butyl Alcohol	G	E/T	Cyclohexane (Alicyclic Hydrocarbon)	G	O	Furfuryl Alcohol	G	E
Aluminum Sulfate	G	E/T	Butyl "Cellosolve Adipate"	G	E/T	Cyclohexanol	G	V	Gallic Acid	NR	—
Ammonia, Anhydrous (Pure Ammonia)	NR	—	Butyl Phenol	C	E	Cyclohexanone	C	E	Gasoline, Refined	G	T
Ammonia, Aqueous (40% Max)	G	E	Butyl Stearate	G	T	Deionized Water	G	E	Gasoline, Refined, Unleaded	C	O
Ammonium Alum	G	V	Butylene	G	T	Dextrin	G	T	Gelatin	G	A
Ammonium Bifluoride	G	T	Butylene Glycol	G	E	Diacetone Alcohol	G	V	Glucose	G	A
Ammonium Carbonate	G	E	Butyne Diol	NR	—	Dibutyl Phthalate	G	E	Glue	G	T/E
Ammonium Chloride	G	T	Butyraldehyde	C	V	Dichloro Difloro Methane	G	T	Glycerin	G	E/T
Ammonium Fluoride	G	E	Cadmium Cyanide	C	V	Dicyclohexylamine	C	T	Glycerol	G	E/T
Ammonium Hydroxide	G	E	Calcium Acetate	C	T	Diesel Oil	G	T	Glycol	G	E/T
Ammonium Metaphosphate	G	E	Calcium Bisulphate	G	T	Diethyl Ether	C	T	Glycolic Acid	C	E
Ammonium Nitrate	G	T	Calcium Bisulphide	G	T	Diethyl Sebacate	G	E	Grease	G	T
Ammonium Nitrite	G	E	Calcium Bisulphite	G	T	Diethylamine	G	T	Green Sulfate Liquor	G	T
Ammonium Persulfate, to 10%	G	E	Calcium Chloride	G	E/T	Diethylene Glycol	G	E/T	Halon 1301	G	E
Ammonium Phosphate	G	T	Calcium Fluophosphate	C	V	Digester Gas	G	T/S	Heptane	G	T
Ammonium Phosphate	G	T	Calcium Hydroxide (Lime)	G	E/T	Dimethylamine	G	T	Hexaldehyde	G	E
Ammonium Sulfamate	G	T	Calcium Hypochlorite	G	E	Diethyl Phthalate	G	E	Hexane	G	T
Ammonium Sulfate	G	E/T	Calcium Hypochloride	G	E	Dioxane	G	E	Hexanol Tertiary	G	T
Ammonium Sulfide	G	E	Calcium Nitrate	G	VE/T	Dipentene (Terpene-Hydrocarbon)	C	T	Hexyl Alcohol	G	V/T
Ammonium Thiocyanate	G	E	Calcium Sulfate	G	E/T	Dipropylene Glycol	G	T	Hexylene Glycol	G	T
Amyl Acetate	G	E	Calcium Sulfide	G	E	Dowtherm A	G	O	Hydrobromic Acid, to 40%	G	E
Amyl Acetate	G	E	Caliche Liquors	G	T	Dowtherm E	G	O	Hydrochloric Acid, to 36%, 75°F/24°C	G	E
Amyl Alcohol	G	E	Cane Sugar Liquors	G	A	Dowtherm SR-1	G	T/E	Hydrochloric Acid, to 36%, 158°F/70°C	C	O
Amyl Borate	G	V	Carbitol	G	E/T	Ethanolamine	G	E	Hydrocyanic Acid	G	E
Amyl Chloride	NR	—	Carbonic Acid, Phenol	G	O	Ethyl Acetoacetate	G	E	Hydrofluoric Acid, to 75%, 75°F/24°C	G	O
Amyl Chloronaphthalene	C	T	Carbon Bisulphide	C	O	Ethyl Acrylate	G	L	Hydrofluosilicic Acid	G	T
Anderol	G	O	Carbon Dioxide, Dry	G	E/T	Ethyl Alcohol	G	E/T	Hydrogen Gas, Cold	C	E/T
Antraquinone	NR	—	Carbon Dioxide, Wet	G	E/T	Ethyl Cellulose	C	E	Hydrogen Gas, Hot	C	E
Antraquinone Sulfonic Acid	NR	—	Carbon Disulphide	G	O	Ethyl "Cellosolve"	G	E	Hydrogen Peroxide, to 50%	C	L
Aniline	G	E	Carbon Monoxide	G	E	Ethyl Chloride	G	E	Hydrogen Peroxide, to 90%	C	O
Aniline Dyes	C	E	Carbon Tetrachloride	G	O	Ethyl Ether	C	T	Hydrogen Phosphide	NR	—
Aniline Hydrochloride	C	E	Castor Oil	G	A	Ethyl Formate	C	V	Hydrogen Sulfide	G	E
Aniline Oil	G	E	Caustic Potash	G	E	Ethyl Oxalate	G	E	Hydroquinone	G	T
Animal Fats	G	A	Cellosolve Acetate	G	E	Ethyl Silicate	G	T	Hydroxylamine Sulfate	C	E
Antimony Chloride	G	E	Cellosolve (Alcohol Ether)	G	E	Ethylene Chlorohydrin	G	E	Hypochlorous Acid, Dilute	G	E
Antimony Trichloride	G	E	Cellulose Acetate	G	E	Ethylene Diamine	G	T	Iso Octane, 100°F/38°C	G	T
Argon Gas	G	E/O	Cellulube 220 (Tri-Aryl-Phosphate)	G	E	Ethylene Dichloride (Dichloroethane)	G	O	Isododecane	G	V
Aroclor(s)	G	O	Cellulube Hydraulic Fluids	G	E	Ethylene Glycol	G	E/T	Isobutyl Alcohol	G	E
Arsenic Acid, to 75%	G	T	China Wood Oil, Tung Oil	G	T	Ethylene Oxide	NR	—	Isopropyl Acetate	G	E
Arylsulfonic Acid	NR	—	Chloralhydrate	NR	—	Fatty Acids	G	A	Isopropyl Alcohol	G	E
Barium Carbonate	G	E	Chloric Acid to 20%	C	E	Ferric Chloride, to 35%	G	E/T	Isopropyl Ether	G	T
Barium Chloride	G	E/T	Chlorine, Dry	C	O	Ferric Chloride, Saturated	G	E	JP-3	G	T
Barium Hydroxide	G	E/T	Chlorine, Water 4000 PPM (max.)	C	E	Ferric Hydroxide	C	E	JP-4	G	T
Barium Nitrate	G	V	Chlorinated Paraffine (Chlorococane)	G	T						

NOTE: The Grade "EHP" gasket can be used on all chemical, water and air services suitable for Grade "E" gaskets.



# Gasket Selection Guide

Chemical Composition	Rating Code	Gasket Grade
JP-5, 6, 7, 8	G	T
Kerosene	G	T
Ketones	G	E
Lactic Acid	G	A
Lard	G	A
Lard Oil	G	V
Latex (1% Styrene & Butadiene)	G	O
Lauric Acid	G	T
Lauryl Chloride	NR	—
Lavender Oil	G	T
Lead Acetate	G	T
Lead Chloride	C	E
Lead Sulfamate	G	V
Lead Sulfate	G	T
Lime and H2O	G	E/T
Linoleic Acid	G	O
Linseed Oil	G	A
Lithium Bromide	G	T
Lithium Chloride	G	T
Lubricating Oil, Refined	G	T
Lubricating Oil, Sour	G	T
Lubricating Oil, to 150°F/66°C	G	T
Lubricating Oil, 150°F/66°C to 180°F/82°C	G	V
Magnesium Ammonium Sulfate	C	V
Magnesium Chloride	G	E/T
Magnesium Hydroxide	G	E/T
Magnesium Nitrate	G	V
Magnesium Oxide	C	V
Magnesium Sulfate	G	E/T
Maleic Acid	G	T
Malic Acid	G	T
Mercuric Chloride	G	E/T
Mercuric Cyanide	G	T
Mercurous Nitrate	G	E/T
Mercury	G	T
Methane	C	T
Methyl Acetate	C	V
Methyl Alcohol, Methanol	G	E/T
Methyl Cellosolve (Ether)	G	V
Methyl Chloride	C	O
Methyl Cyclopentane	C	V
Methyl Ethyl Ketone	C	E
Methyl Isobutyl Carbinol	G	E
Methyl Isobutyl Ketone	NR	—
Methylene Chloride	C	O
Methylene Dichloride 100°F/38°C	G	O
MIL-L7808	G	O
MIL-05606	G	O
MIL-08515	G	O
Milk	G	A
Mineral Oils	G	T
Naptha, 160°F/71°C	G	O
Napthalene	NR	—
Napthenic Acid	C	T
Natural Gas	C	T
Nevoil	G	E
Nickel Acetate to 10%, 100°F/38°C	G	V
Nickel Ammonium Sulfate	G	V
Nickel Chloride	G	E/T
Nickel Nitrate	G	V
Nickel Plating Solution 125°F/52°C	G	E
Nickel Sulfate	G	E/T
Nicotine	C	V
Nicotine Acid	C	V
Nitric Acid to 10%, 75°F/24°C	G	E
Nitric Acid, 10-50%, 75°F/24°C	G	O
Nitric Acid, 50-86%, 75°F/24°C	C	O
Nitric Acid, Red Fuming	C	O
Nitrocellulose	G	V
Nitroethane	C	E

Chemical Composition	Rating Code	Gasket Grade
Nitromethane	G	E
Nitrous Oxide	G	E
Octyl Alcohol	G	V
Ogisogiric Acid, to 75%, 150°F/66°C	G	O
Oil, Crude Sour	G	T
Oil, Motor	G	T
Oleic Acid	G	T
Olive Oil	G	A
Oronite 8200 Silicate Ester Fluid	G	O
Orthodichlorobenzene	G	O
OS-45 Silicate Ester Fluid	G	O
OS-45-1	G	O
Oxalic Acid	G	E
Oxygen, Cold †	C	E
Ozone (100 ppm)	G	E
Palmitic Acid	G	T
Peanut Oil	G	A
Pentane	G	T
Perchloroethylene	G	O
Perchloric Acid	NR	—
Petroleum Ether (see Benzene)	G	O
Petroleum Oils	G	T
Phenol (Carbolic Acid)	G	O
Phenylhydrazine	C	E
Phenylhydrazine Hydrochloride	C	E
Phosphate Ester	G	E
Phosphoric Acid, to 50% and 70°F	G	E
Phosphoric Acid, to 85% and 200°F	G	O
Photographic Solutions	G	T
Phthalic Anhydride	G	E
Picric Acid, Molten	G	V
Plating Solutions (gold, brass, cadmium, copper, lead, silver, nickel, tin, zinc)	G	V
Polybutene	G	T
Polyvinyl Acetate, Solid (In Liquid State is 50% solution of Methanol or 60% solution of H2O)	G	E
Potassium Alum	G	E/T
Potassium Bicarbonate	G	E/T
Potassium Bichromate	G	T/E
Potassium Borate	G	E
Potassium Bromate	G	E
Potassium Bromide	G	E/T
Potassium Carbonate	G	E/T
Potassium Chlorate	G	E
Potassium Chloride	G	T
Potassium Chromate	G	T
Potassium Cyanide	G	E/T
Potassium Dichromate	G	E
Potassium Ferricyanide	G	E
Potassium Ferrocyanide	G	E
Potassium Fluoride	G	E
Potassium Hydroxide	G	T
Potassium Iodide	G	V
Potassium Nitrate	G	T
Potassium Perborate	G	E
Potassium Perchlorate	G	T
Potassium Permanganate, Saturated to 10%	G	E
Potassium Permanganate, Saturate 10-25%	G	E
Potassium Persulfate	G	T
Potassium Phosphate	G	V
Potassium Silicate	G	V/E/T
Potassium Sulfate	G	T
Potassium Thiosulfate	G	V
Prestone	G	T
Propane Gas	C	T
Propanol	G	E
Propargyl Alcohol	G	E

Chemical Composition	Rating Code	Gasket Grade
Propyl Acetate	C	V
Propyl Alcohol	G	T
Propylene Dichloride	C	L
Propylene Glycol	G	E
Pydraul F - 9 and 150	NR	—
Pyranol 1467	G	T
Pyranol 1476	G	T
Pyroguard "C"	G	T
Pyroguard "D"	G	T
Pyroguard 55	G	E
Pyrrrole	G	E
Rapeseed Oil	G	A
Ref. Fuel (70 ISO Octane, 30 Toluene)	G	T
Rosin Oil	G	V/T
Salicylic Acid	G	E
Secondary Butyl Alcohol	G	T
Sewage	G	E/T
Silver Cyanide	C	V
Silver Nitrate	G	E
Silver Plating Solution	C	V
Silver Sulfate	G	E
Skydrol, 200°F/93°C	G	L
Skydrol 500 Phosphate Ester	C	E
Soap Solutions	G	E/T
Soda Ash, Sodium Carbonate	G	E/T
Sodium Acetate	G	E
Sodium Alum	G	T
Sodium Benzoate	G	E/T
Sodium Bicarbonate	G	E/T
Sodium Bisulfate	G	E/T
Sodium Bisulfite (Black Liquor)	G	E/T
Sodium Bromide	G	E/T
Sodium Carbonate	G	E/T
Sodium Chlorate	G	E
Sodium Chloride	G	E/T
Sodium Cyanide	G	E/T
Sodium Dichromate, to 20%	G	E/T
Sodium Ferricyanide	G	E/T
Sodium Ferrocyanide	G	E/T
Sodium Fluoride	G	E/T
Sodium Hydro Sulfide	G	T
Sodium Hydroxide to 50%	G	E
Sodium Hypochlorite, to 20%	G	E
Sodium Metaphosphate	G	T
Sodium Nitrate	G	E
Sodium Nitrite	G	E/T
Sodium Perborate	G	E
Sodium Peroxide	G	E
Sodium Phosphate, Dibasic	G	T
Sodium Phosphate, Monobasic	G	T
Sodium Phosphate, Tribasic	G	T
Sodium Silicate	G	T
Sodium Sulfate	G	E/T
Sodium Sulfide	G	T
Sodium Sulfite Solution, to 20%	G	T
Sodium Thiosulfate, "Hypo"	G	T
Sohovis 47	G	T
Sohovis 78	G	T
Solvosol #1	G	T
Solvosol #2	G	T
Solvosol #3	G	T
Solvosol #73	C	T
Solvosol #74	NR	—
Soybean Oil	G	A
Spindle Oil	G	T
Stannic Chloride	G	T
Stannous Chloride, to 15%	G	T
Starch	G	T
Steam	NR	—
Stearic Acid	G	T
Stoddard Solvent	G	T

Chemical Composition	Rating Code	Gasket Grade
Styrene	G	O
Sucrose Solutions	G	A
Sulfonic Acid	G	E
Sulphite Acid Liquor	G	E
Sulfur	G	V/E
Sulfur Chloride	G	O
Sulfur Dioxide, Dry	C	E/T
Sulfur Dioxide, Liquid	G	E
Sulfur Trioxide, Dry	G	O
Sulfuric Acid, to 25%, 150°F/66°C	G	E
Sulfuric Acid, 25-50%, 200°F/93°C	G	O
Sulfuric Acid, 50-95%, 150°F/66°C	G	O
Sulfuric Acid, Fuming	C	O
Sulfuric Acid, Oleum	C	O
Sulfurous Acid	G	O
Tall Oil	C	T
Tannic Acid, All Conc.	G	V
Tanning Liquors (50 g. alum. solution, 50 g. dichromate solution)	G	T
Tartaric Acid	G	E
Terpineol	G	V
Tertiary Butyl Alcohol	G	V/E/T
Tetrabutyl Titanate	G	E
Tetrachloroethylene	G	O
Tetrahydrofuran	NR	—
Tetraol	NR	—
Thionyl Chloride	C	T
Terpineol	C	T
Thiophene	NR	—
Titanium Tetrachloride	G	O
Toluene, 30%	G	T
Transmission Fluid, Type A	G	O
Triacetin	G	T
Trichloroethane	G	O
Trichloroethylene, to 200°F/93°	G	O
Tricresyl Phosphate	G	E
Triethanolamine	G	E/T
Trisodium Phosphate	G	E
Tung Oil	G	T
Turbo Oil #15 Diester Lubricant	G	O
Turpentine	C	T
Urea	G	T
Vegetable Oils	G	A
Vinegar	G	A
Vinyl Acetate	G	E
Vi-Pex	G	T
Water, to 150°F/66°C	G	E/T/M/S
Water, to 200°F/93°C	G	E/M
Water, to 230°F/110°C	G	E
Water, Acid Mine	G	E/T
Water, Bromine	G	V
Water, Chlorine	C	E/M
Water, Deionized	G	E/M
Water, Seawater	G	E
Water, Waste	G	E/T/M/S
Whiskey	G	A
White Liquor	G	E
Wood Oil	G	T
Xylene	C	O
Zinc Chloride, to 50%	G	E
Zinc Nitrate	G	E
Zinc Sulfate	G	E/T

NOTE: The Grade "EHP" gasket can be used on all chemical, water and air services suitable for Grade "E" gaskets.

# Gasket Selection Guide

## Chemical Services Services Not Recommended

The services listed below have been tested and are NOT RECOMMENDED with any of the presently available gasket materials. Services not shown as recommended or not recommended should be submitted to Victaulic for specific recommendations.

Chemical Composition	Rating Code
Acrylonitrile	NR
Allyl Chloride	NR
Amyl Chloride	NR
Anthraquinone	NR
Anthraquinone Sulfonic Acid	NR
Arylsulfonic Acid	NR
Butyne Diol	NR
Chloralhydrate	NR
Chlorobromomethane	NR
Chlorosulphonic Acid	NR
Ethylene Oxide	NR
Fluorine Gas Wet	NR
Freon 21	NR
Furan	NR
Gallic Acid	NR
Hydrogen Phosphide	NR
Lauryl Chloride	NR
Methyl Isobutyl Ketone	NR
Napthalene	NR
Perchloric Acid	NR
Pydraul F -9 and F - 150	NR
Solvasol #74	NR
Steam	NR
Tetra Hydrofuran	NR
Tetralin	NR
Thiophene	NR

## Water and Air Services

	Rating Code	Gasket Grade
Air, Temp. -30°F to +230°F/ -34°C to +110°C (no oil vapors)	G	E
Dry Air, Temp. +230°F to +350°F/ +110°C to +177°C (no oil or water vapors)	G	L
Air, Oil Vapor, Temp. 0°F to +150°F/ -18°C to 66°C	G	T
Air, Oil Vapor, Temp. +150°F to +300°F/+66°C to +149°C	G	O
Water, Temp. to +150°F/+66°C	G	E/T/M/S
Water, Temp. to +200°F/+93°C	G	E/M
Water, Temp. to +230°F/+110°C*	G	E
Water, Temp. to +250°F/+120°C	G	EHP
Water, Acid Mine	G	E/T
Water, Bromine	G	V
Water, Chlorine	C	E/M
Water, Deionized	G	E/M
Water, Seawater	G	E
Water, Waste	G	E/T/M/S

\* Recommended for water only. Not recommended for steam service, except where couplings are accessible for frequent gasket replacement.  
NOTE: The Grade "EHP" gasket can be used on all chemical, water and air services suitable for Grade "E" gaskets.

### WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

### NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

### INSTALLATION

Reference should always be made to the I-100 Victaulic Field Installation Handbook for the product you are installing. Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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