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Dixon Bayco Products Bottom Loading, Gasket & Seal recommendations for alternative fuels.

Dixon has completed several years of testing and engineering evaluation to ensure our products are compatible with all modern motor fuels in use today.

Dixon uses a proprietary seal compound that we refer to by the trade name BAYLAST™. BAYLAST™ has been tested both in the lab and field with excellent results. BAYLAST™ was developed so we could offer a single seal material compatible with the wide range of alternative fuels used today. For the past year,

many Dixon Bayco products have used BAYLAST™ seals to ensure compatibility with alternate fuels including E100 Ethanol, E85 Ethanol, B2 Biodiesel, B20 Biodiesel, Ultra Low Sulfur Diesel, and standard refined gasoline and diesel products with excellent results. Our tests indicate that BAYLAST™ performs well down to -40° C/F.

There are mechanical and temperature considerations that must be understood to determine which seal material is suitable for a specific application. A good example is Teflon, it has a very wide chemical compatibility range but is a poor seal material for mechanical reasons. Using FKM-B, or FKM-GF is one solution to ensure compatibility, but FKM has limitations regarding the mechanical suitability for seal applications with moving joints. One critical and well known limitation to FKM is cold temperature. FKM will become hard at low temperatures and seals with moving parts tend to weep liquid.

Attached is our fuel compatibility chart which outlines our recommendation for each Dixon Bayco product and type of fuel. Should you need additional technical support, or if we can help answer any of your tanker issues, please Dixon at 877-963-4966.

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The Right Connection®

Bayco Products Fuel Compatibility Chart

Dixon Bayco Product	Description	Fuel Product*										
		Gasoline	Diesel	ULSD	Crude Oil	E10	E20	E85	E100	B2	B20	B100
4500 Series, 4530SG, & 4540SG	API Drop Adapter With Sight Glass, Baylast Seals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4530, 4540	API Drop Adapter Without Sight Glass, Baylast Seals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4530V	API Drop Adapter Without Sight Glass, FKM Seals	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓
4500V Series, 4530SGV, 4540V, 4540SGV	API Drop Adapter With Sight Glass, FKM Seals	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓
5200SFI & 5200SFI-3	TTMA Flanged Sight Glass With Baylast Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	✓
5200SFIV & 5200SFIV-3	TTMA Flanged Sight Glass With FKM Seals	✓	✓	✓	NR	NR	NR	NR	NR	✓	✓	✓
5204, 5204C, 5204L	API Valve With Sight Glass, Baylast Seals	✓	✓	✓	NR	✓	✓	NR	NR	✓	✓	✓
5204NG, 5204NGC, 5204LNG	API Valve Without Sight Glass, Baylast Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	✓
5204NGV	API Valve Without Sight Glass, FKM Seals	✓	✓	✓	NR	NR	NR	NR	NR	✓	✓	✓
5204SFI	API Valve With Inline Tube Sight Glass, Baylast Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	✓
5204SNG	API Valve Without Sight Glass, Baylast Seals, Stainless Spring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5204TNG	API Valve Without Sight Glass, PTFE Seals	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	✓
5300 & 5400	API Rack Coupling Buna Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	NR
5300B, 5300G, 5400B & 5400G	API Rack Coupling FKM-B or FKM-GFLT Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	✓
5300BS	API Rack Coupling FKM-B Seals, Stainless Steel Spring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6000, 6200 & 6500 Series Drop Elbows	Petroleum Drop Elbows & Inlets, Buna Seals	✓	✓	✓	NR	✓	✓	✓	✓	✓	✓	NR
Vapor or Product Hose Couplings	Petroleum Vapor Hose Couplings, Buna Seals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vapor or Product Hose Couplings	Petroleum Vapor Hose Couplings, FKM Seals	✓	✓	✓	✓	NR	NR	NR	NR	✓	✓	✓
VR4000 & VR4100 Series Vapor Valves	Petroleum Vapor Valves	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VR6100, VR6200 & VR6500 Vapor Elbows	Petroleum Vapor Elbows & Inlets	✓	✓	✓	NR	✓	✓	✓	NR	✓	✓	NR
VR6030SQ & VR6035SQ	Sequential Vapor Vent Valves, Baylast Seals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
300GTTFCB & 400GTTFCB	Cork Buna TTMA gasket	✓	✓	✓	✓	✓	NR	NR	NR	✓	NR	NR
400GTTFK	Klinger Style TTMA gasket	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
40321TF, 40322TF & 40323TF	PTFE Soft Core TTMA Gaskets	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FT151, FT202, FT101	FloTech Sensors	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FT151S, FT201S, FT101S	FloTech Stainless Steel Sensors	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes:

NA Not Applicable (This product is not used in this application)

NR Not Recommended

NR1 Not Recommended cost and tendency for PTFE to become damaged from particulate material is not justified for this application.

NR2 Not Recommended crude oil contains acids that are corrosive to steel parts

ULSD Ultra low sulfur diesel (ULSD) is a term used to describe a standard for defining diesel fuel with substantially lowered sulfur contents. As of 2006, almost all of the petroleum based diesel fuel available in Europe and North America is of a ULSD type.

Crude Oil Oil in its natural state, as it comes from the ground. Crude oil can contain various other chemicals and gases, many of which can be corrosive.

E10 10% Ethanol, 90% Gasoline

E20 20% Ethanol, 80% Gasoline

E85 85% Ethanol, 15% Gasoline

E100 100% Ethanol

B2 2% Bio diesel, 98% diesel (normally ULSD as above)

B20 20% Bio diesel, 80% diesel (normally ULSD as above)

B100 100% Bio diesel

*Petroleum companies often put additives in fuels, additives can affect compatibility with fittings and seals, Please contact Dixon for more information. FKM GFLT is compatible with all liquids listed above and available from Dixon by special quotation. Baylast™ is a proprietary seal compound from Dixon.