

## Hydrocarbons and EPDM Can't Mix.

This topic has been covered in the past... EPDM liners in butterfly valves DO NOT mix with hydrocarbons. But sometimes, all it takes are a few good photos to drive home the point.

EDPM is the “standard” liner for Milwaukee Valve’s resilient-seated butterfly valves used in most plumbing and HVAC applications. Hydrocarbons can come in many forms and some of the more common ones encountered include: Natural Gas, Propane, Gasoline, Kerosene, Diesel Fuel, Jet Fuel, Petroleum-based oils and lubricants, and Asphalt.

Below are a few of the many photos collected of valves that failed which had EPDM liners.

1. This is a CL223E butterfly valve on a hydraulic oil line.



2. This valve was installed on a Purge Oil line. Purge Oil is used to preserve fuel tanks of jet aircraft when not in use for extended periods of time. Purge Oil is described as Petroleum Distillates, Hydrotreated Light, per the Material Safety Data Sheet (MSDS) that was supplied with the returned valve.



3. This valve was reportedly used on Jet A Fuel / Purge Oil. These are different media, so we're not sure which one did the damage. Regardless, EPDM would not be

recommended for either.



4. The last valve was used on Ultra Low Sulfur Diesel (ULSD) Fuel.



For these applications, and depending on the media and pressure/temperature requirements of the installation, an Elastomer Guide for rubber-lined butterflies (<https://www.milwaukeevalve.com/data/files/EngineeringSpecs.pdf>) recommends Buna or Viton. Buna is also recommended for compressed air lines, as they could contain compressor oils and lubricants that are not compatible with EPDM.

Milwaukee Valve has produced a white paper on this topic, which can be found under RESOURCES ->TECHNICAL/SERVICE INFORMATION -> TECHNICAL BULLETINS -> [Butterfly Valve Liner for Hydrocarbon Service](#) on the Milwaukee Valve website.

As always, if unsure of a specific application, consult your regional manager for guidance.



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