

# Tech Update

## EPDM vs. SBR: Accelerated Ozone Test

Over the past 24 months there has been an influx of imported industrial hose into the U.S. market. Parker Hannifin Industrial Hose Division has tested general-purpose hose and L.P. gas hose from China. We have conducted materials analysis and burst pressure test and found they are below our U.S. standards in both materials and safety factors. A poor quality SBP compound was used on both types of hoses, as compared to EPDM used on our general-purpose hose nitrile tube and neoprene cover used on our L.P. gas hose. There is a major price difference between these two compounds. All major manufacturers in the United States use EPDM tube and cover on their general-purpose hose due to ozone and weathering conditions that most hoses will be subjected to in their application.



**Accelerated Ozone Test**

**Ozone -** Is formed from oxygen in the atmosphere by electrical discharge, or ultra violet light. Brings about a rapid oxidation in rubber stock. It reacts with rubber to weaken it and cause extensive cracking. The cracks get progressively deeper as new areas are exposed to ozone attack severely limiting the life of the hose.

**SBR -** (Styrene Butadiene Rubber) No Ozone resistance and poor weathering.  
*Approximately half the price of a good grade EPDM*

**EPDM -** (Ethylene Propylene Terpolymer) Highly resistant to ozone and weathering.

	<b><u>SBR</u></b>	<b><u>EPDM</u></b>
Abrasion	Excellent	Good
Ozone Cracks	Poor	Excellent
Sunlight Aging	Poor	Excellent

Please use this information to make sure when quoting that there is an equal comparison on compounds and construction.

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