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## O-RING SHELF LIFE CHART

### ARP 5316 ELASTOMER SHELF LIFE RECOMMENDATION

In 1998, the Society of Aerospace Engineers (SAE) issued Aerospace Recommended Practice (ARP) 5316. It was intended to fully replace MIL-HDBK-695C as the industry standard for the Shelf Life of Aerospace elastomeric seals. However, ARP 5316 can also be used as a useful guideline for Shelf Life of many industrial and commercial grade elastomers as well.

The information in ARP 5316, and the chart below, is intended to be utilized by those organizations who do not already have specific recommendations for the control of elastomeric seals. It should be noted that the packaging of the elastomeric seals prior to assembly into a product is an integral part of the controlled storage procedure. It provides a positive means of product identity from the time of manufacture, to the time of assembly.

ARP 5316 does not establish limitations for storage times in assembled components, nor does it in any way provide a guideline for the operating life span of a particular compound.

<u>ELASTOMER FAMILY</u>	<u>ASTM Abbreviation</u>	<u>ARP 5316 Recommended Shelf Life</u>
Aflas®	-	Unlimited
Butyl Rubber, Isobutylene Isoprene	IIR	Unlimited
Chemraz: 504, 505, 514, 526	CHEM	30 Years
Chloroprene (Neoprene®)	CR	15 Years
Epichlorohydrin (Hydrin®)	ECO	NA
Ethylene Acrylic (Vamac®)	AEM	15 Years

Ethylene Propylene, EPDM or EP	EP	Unlimited
Fluorocarbon (Viton®)	FKM	Unlimited
Fluorsilicone	FVMQ	Unlimited
Hydrogenated Nitrile, HNBR or HSN	HNBR	15 Years
Nitrile (Buna-N or NBR)	NBR	8 - 10 Years
Polyacrylate	ACM	15 Years
Polyurethane (Polyester or Polyether)	AU / EU	5 Years
Silicone	VMQ	Unlimited
Styrene Butadiene (Buna-S)	SBR	3 Years

The data shown here are shown as an engineering guide only and should not be used for the purpose of establishing performance limits. These values were obtained using established standard test procedures and are believed to be reliable. However, due to the variables that may be encountered in actual use, it is always advisable to test the material under actual service conditions before specification.