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## ESP O-RING SHELF LIFE CHART BASED ON ARP 5316 ELASTOMER SHELF LIFE RECOMMENDATIONS

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 the chart below, is ESP's recommendation based on the ARP 5316 standard and 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.

ESP 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.

ELASTOMER FAMILY	ASTM Abbreviation	ESP Recommended Shelf Life
Aflas®	-	25 Years
Butyl Rubber, Isobutylene Isoprene	IIR	25 Years
Chloroprene (Neoprene®)	CR	15 Years
Ethylene Acrylic (Vamac®)	AEM	15 Years
Ethylene Propylene, EPDM or EP	EP	25 Years
Fluorocarbon (Viton®)	FKM	25 Years
Fluorosilicone	FVMQ	25 Years
Hydrogenated Nitrile, HNBR or HSN	HNBR	15 Years
Nitrile (Buna-N or NBR)	NBR	15 Years
Polyacrylate	ACM	15 Years
Polyurethane (Polyester or Polyether)	AU / EU	5 Years
Silicone	VMQ	25 Years
Styrene Butadiene (Buna-S)	SBR	3 Years