



## Material Shelf Life Guidelines

ASTM Designation	Chemical Name	Common Name	Recommended Shelf Life in Years	
			SAE ARP 5316*	MIL-HDBK-695E*
<b>D1418</b>	<b>Standard Practices for Rubber</b>		<b>SAE ARP 5316*</b>	<b>MIL-HDBK-695E*</b>
ACM, ANM	Polyacrylate	Acrylic	---	20
AU	Polyester Urethane	Urethane	5	5
CR	Polychloroprene	Neoprene <sup>®</sup>	15	15
CSM	Chlorosulfonated Polyethylene	Hypalon <sup>®</sup>	---	15
T	Polysulfide	Thiokol <sup>®</sup>	---	20
EPDM	Ethylene/Propylene/Diene	EPDM	Unlimited	20
EU	Polyether Urethane	Urethane	5	5
FEPM	Tetrafluoroethylene/Propylene	Aflas <sup>®</sup>	Unlimited	---
FFKM	Perfluorocarbon	Kalrez <sup>®</sup>	Unlimited	20
FKM	Fluorocarbons	Viton <sup>®</sup> , Fluorel <sup>®</sup>	Unlimited	20
FVMQ	Fluoro Methyl Vinyl Silicone	Fluorosilicone, Silastic LS	Unlimited	20
IIR	Isobutylene Isoprene	Butyl	Unlimited	20
IR	Cis 1, 4, Polyisoprene	Natural Rubber, Synthetic	---	3
NBR	Butadiene Acrylonitrile	Buna-N, Nitrile	15 Years	15
NR	Cis 1, 4, Polyisoprene	Natural Rubber, Pale Crepe	---	3
SBR	Butadiene Styrene	SBR (Buna S)	3	3
VMQ, Q	Methyl Vinyl Silicone	Silicone	Unlimited	20
<b>Other</b>	<b>Standard Practices for Plastics and Other Materials</b>		<b>Per</b>	<b>In Years</b>
ETFE <sup>®</sup>	Fluoropolymer Resins	Tefzel <sup>®</sup> ETFE <sup>®</sup>	E. I. DuPont De Nemours Co	Unlimited
FEP <sup>®</sup>	Fluorocarbon Resin	Teflon <sup>®</sup> FEP <sup>®</sup>	E. I. DuPont De Nemours Co	Unlimited
PFA <sup>®</sup>	Fluoropolymer Resins	Teflon <sup>®</sup> PFA <sup>®</sup>	E. I. DuPont De Nemours Co	Unlimited
PTFE <sup>®</sup>	Fluoropolymer Resins	Teflon <sup>®</sup> PTFE <sup>®</sup>	E. I. DuPont De Nemours Co	Unlimited
TPV <sup>®</sup>	Thermoplastic Vulcanizate	Santoprene <sup>®</sup>	ExxonMobil Chemical	10 Qualified
HDPE	Carbon Hydrogen Petroleum	High Density Polyethylene	Plastics & Chemicals Inds Ass	Unlimited
LDPE	Carbon Hydrogen Petroleum	Low Density Polyethylene	Plastics & Chemicals Inds Ass	Unlimited
Gasketing	Various	Various	Specific Material Case Studies	Various

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\* Per SAE ARP5316 Rev C 2010-12 and MIL-HDBK-695E 20/October/2011.

These documents and above guidelines do not establish limitations or storage times for assembled components for the estimated or actual shelf, storage or operating life of said components.

The estimated or actual shelf, storage or operating life of said components is up to the End User(s) to determine based upon its/their specific application(s).

G-M-I, Inc. supplies these guidelines as a free service and assumes no liability for their use.

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Note: MIL-HDBK-695-E, ¶ 1.2.2 Products Excluded. The types of above rubber products excluded from this handbook are as follows:

Section c. Aerospace o-rings and other molded seals. Refer to *SAE ARP5316* for recommended shelf lives.

Section g. Composites in which the rubber is in admixture with other ingredients, etc.

Section h. Subassemblies, assemblies and systems which contain elastomeric items as component parts, etc.

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