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DEPARTMENT OF DEFENSE HANDBOOK

RUBBER PRODUCTS: RECOMMENDED SHELF LIFE



THIS HANDBOOK IS FOR GUIDANCE ONLY.
DO NOT CITE THIS HANDBOOK AS A REQUIREMENT.

AMSC N/A FSC 9320

FOREWORD

- 1. This handbook is approved for use by all Departments and Agencies of the Department of Defense (DoD).
- 2. This handbook is for guidance only. The handbook covers elastomeric products of Military, Federal, and recognized industry specifications. It provides guidance as to the time periods during which these elastomeric products may be stored without deterioration.
- 3. Comments, suggestions, or questions on this document should be addressed to Commander, Naval Inventory Control Point, Attn: Code P077, 700 Robbins Avenue, Philadelphia, PA 19111-5098 or emailed to matthew.l.fee@navy.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.daps.dla.mil.

CONTENTS

<u>Paragraph</u>	<u>Page</u>
FOREWORD	ii
1. SCOPE	1
1.1 Scope	1
1.2 Applicability	
1.2.1 Products included	1
1.2.2 Products excluded	
1.3 Application	2
2. APPLICABLE DOCUMENTS	3
2.1 General	3
2.2 Government documents	3
2.3 Non-Government publications	3
3. DEFINITIONS	3
3.1 Age resistance	3
3.2 Cure date	3
3.3 Shelf life	4
3.4 Service life	4
4. GENERAL GUIDANCE	4
4.1 Introduction	4
4.2 Type of rubber	
4.3 External factors influencing shelf life	
4.3.1 Packaging	
4.3.2 Storage	
4.3.2.1 Temperature	
4.3.2.2 Humidity	
4.3.2.3 Ozone	
4.3.2.4 Light	
4.3.2.5 Stock rotation	
4.4 Documents	
4.4.1 Cancelled documents	
4.4.2 Supersession	
4.4.3 Superseding documents	5
5. NOTES	
5.1 Intended use	
5.2 Subject term (key word) listing	
5.3 Changes from previous issue	6

TABLES

TABLE I. Age resistance generally associated with products fabricated from various rubbe	ers. 7
TABLE II. Documents	8
TABLE III. Documents having material composition of natural or synthetic rubber	2 <i>e</i>
TABLE IV. Documents having material composition of synthetic rubber	30
APPENDIX A	
A.1 SCOPE	31
A.1.1 Scope	31
A.2 APPLICABLE DOCUMENTS	31
A.3 REMOVAL CRITERIA	31
A.4 DISPOSITION TABLES	31
APPENDIX A TABLES	
TABLE V. Material cross reference.	31
TABLE VI. Document cross reference	32
CONCLUDING MATERIAL	37

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1. SCOPE

- **1.1 Scope.** This handbook provides guidance for establishing time periods for the expected life of elastomeric products during shelf storage. The use of the expected shelf storage lives listed herein is NOT MADE MANDATORY by this handbook. This handbook is for guidance only and cannot be cited as a requirement. The decision as to whether or not a product will have a limit placed upon the time that it may remain in storage is a function of the agency responsible for the product's ultimate use.
- **1.2 Applicability.** The handbook covers only elastomeric products described by Government specifications and standards or by nationally recognized technical society specifications and standards. The documents defining the items covered by this handbook were selected from the following sources:
 - a. *Acquisition Streamlining and Standardization Information System (ASSIST)* (available from https://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Philadelphia, PA 19111-5094).
 - b. *SAE International* (available from www.sae.org or from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001).
 - c. *National Aerospace Standards* (NAS) (available from www.aia-aerospace.org or from Aerospace Industries Association of America, Inc., 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209).
 - d. *ASTM International* (available from www.astm.org or from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959).
- **1.2.1 Products included.** The types of elastomeric products covered by this handbook are as follows:
 - a. Products fabricated solely from rubber. These include solid rubber, cellular rubber and hard rubber (ebonite) items.
 - b. Composites in which the rubber is present as a discrete phase. Examples are cables, fabric reinforced gaskets, non-aerospace hoses, rubber coated fabrics, shock mounts and tires.
 - c. Kits, accessories and outfits. The shelf life for these items should be determined by the component with the earliest expiration date.

1.2.2 Products excluded. The types of products excluded from this handbook are as follows:

- a. Rubber-base adhesives, coatings, sealers, and liquid rubber materials packaged in cans or tubes.
- b. Rubber tapes.
- c. Aerospace o-rings and other molded seals. Refer to *SAE ARP5316* for recommended shelf lives.
- d. Aerospace bulk hoses and hose assemblies. Consult *SAE AS1933* for age control limits for acceptance of aerospace bulk hoses and hose assemblies.
- e. Non-aerospace bulk hoses and hose assemblies (surface vehicle, industrial and marine application). Consult *SAE J517* for age control limits for acceptance of non-aerospace bulk hoses and hose assemblies.
- f. Unvulcanized rubber, such as tread repair stock and tank lining sheet stock.
- g. Composites in which the rubber is in admixture with other ingredients, for example, rubber-asbestos packings and rubber-cork gaskets.
- h. Subassemblies, assemblies and systems which contain elastomeric items as component parts, such as small arms, weapons, vehicles, aircraft, missiles and space vehicles.
- i. Products fabricated from flexible materials that are not elastomeric, for example, some plastics.

1.3 Application. The information contained in this handbook is intended to be used as a guide by those agencies whose responsibility it is to place control requirements on rubber products, as well as by those activities whose responsibility it is to control the age of products stocked in Government storage facilities. The handbook is not intended for use in controlling the age of rubber products prior to their acceptance by the Government or by Government contractors. The decision as to whether or not to dispose of "overage" products is not made mandatory by this handbook. Responsible activities should make every attempt to limit the procurements of rubber products to the extent that large volumes of "overage" products will not be accumulated in storage. Where technically feasible and economically practical, "overage" products should be reviewed to determine whether or not they still meet the requirements of the applicable specifications. Products within their shelf life range should also be reviewed if visual examination shows any signs of accelerated aging. Procurement documents should require the mold marking of the cure date, such as the year and month on the rubber product (or on its package) and careful records kept of the cure date of all stored rubber products. When age limitations of the item specification listed herein conflict with the requirements herein, the requirements of the item specification take precedence.

2. APPLICABLE DOCUMENTS

- **2.1 General.** The documents listed below are not all of the documents referenced herein. See 4.4.1 4.4.3 for information on how specifications are referenced within this handbook.
- **2.2 Government documents.** Government documents are available from https://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Philadelphia, PA 19111-5094).
- **2.3 Non-Government publications.** The following documents form a part of this document to the extent specified herein.

SAE AS1933	Material. (DoD adopted)
SAE ARP5316	Storage of Aerospace Elastomeric Seals and Seal Assemblies Which Include an Elastomer Element Prior to Hardware Assembly. (DoD adopted)

Age Controls for Hose Containing Age-Sensitive Flastomeric

Hose, Hydraulic. (DoD adopted)

(Copies of these documents are available online at http://www.sae.org or from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.)

3. **DEFINITIONS**

SAE J517

SAF AS1933

- **3.1** Age resistance Resistance to deterioration in storage by environmental factors, such as heat, light and ozone.
- **3.2** Cure date The date the rubber is fully cured. Two methods in expressing the cure date are as follows:
 - a. Shelf life to a maximum of 3 years. Cure date stated in terms of month of calendar year and the year, e.g., 6-83.
 - b. Shelf life in excess of 3 years. Cure date stated in terms of the quarter of calendar year and the year, e.g., 2Q-83.

- **3.3 Shelf life** The maximum period of time between the cure date and the date the elastomeric product is first removed or unpackaged for installation or fabrication into a component part of a subassembly, assembly, or system. During the shelf life time, the stored elastomeric product is expected to retain its characteristics as originally specified, if it is stored under proper storage conditions.
- **3.4 Service life.** A general term used to quantify the average or mean life of an item once put in use. Service life, which is depicted in years, is the number of years of economical service reasonably expected of equipment as established in applicable DoD, Service, and/or Agency manuals, bulletins, regulations, instruction manuals, and/or the technical judgment of the item and/or equipment manager.

4. GENERAL GUIDANCE

- **4.1 Introduction.** The key factor involved in the shelf life of rubber end products is the age resistance of the rubber from which the product was fabricated. External factors such as packaging and storage conditions (e.g. temperature, humidity, ozone, light, etc.) can reduce the effective shelf life of rubber products. Additionally, commodity specification requirements may contain criteria that influence end product shelf life. The relative importance of these factors is difficult to assess, especially because the age resistance of the raw rubber does not always correspond to the age resistance of the finished product. Note: SAE ARP5316 was used as a basis for developing Table I shelf life values and providing the external factors that influence an item's shelf life. Appendix A provides a cross reference of all materials (Table V) and specifications (Table VI) that have been removed from the previous revision of this handbook.
- **4.2 Type of rubber.** Certain types of rubber are more age resistant than others. This is due to the inherent stability of the chemical bonds of those rubbers. For example, the bonds in silicone rubber are not susceptible to attack by oxygen or ozone, therefore it has a much higher age resistance than other rubbers. Table I indicates the age resistance generally associated with products based on various types of rubber.
- **4.3 External factors influencing shelf life.** The following external factors should be considered so as to not shorten an item's shelf life.
- **4.3.1. Packaging.** All rubber shelf life items should be adequately packaged to prevent any deterioration of the item. As contact with other materials, such as liquids, semi-solids, metals, other elastomers, etc., can affect item shelf life, it is recommended that rubber shelf life items be individually preserved.
- **4.3.2 Storage.** Proper storage of rubber shelf life items is critical so as not to shorten the shelf life of the item. Important factors to consider when storing rubber shelf life items are specified in 4.3.2.1 4.3.2.5.
- **4.3.2.1 Temperature.** Rubber end products should be stored below 100 °F (38 °C). It may be necessary to raise the temperature of the product if it was stored below its optimum use

temperature prior to installation. Optimum installation temperatures may vary based on the end use or application of the product.

- **4.3.2.2 Humidity.** Rubber end products should be stored in an atmosphere of less than 75 percent relative humidity. Extra care should be taken when storing polyurethane rubbers as they are more susceptible to degradation through exposure to humidity.
- **4.3.2.3 Ozone.** Minimize exposure to ozone, since ozone can degrade some unprotected rubber products. This is especially pertinent when products are stored in a manufacturing environment, as equipment that uses high voltage sources or emits combustion products generates precursors to ozone formation.
- **4.3.2.4 Light.** Rubber products should not be stored in direct sunlight or ultraviolet light.
- **4.3.2.5 Stock rotation.** In general, stock of rubber end products should be issued based on their shelf life expiration date. Use of a first-in, first-out (FIFO) principle based on cure date may aid in this process.
- **4.4 Documents.** The documents listed in Table II, Table III, and Table IV list only the documents which had procurements within 10 years of the date of this handbook. Tables III and IV do not list specific shelf life dates because the specific rubber types are not defined in the document. The shelf life values listed in Table II were determined based upon the optimum storage conditions and the type of rubber commonly used or required by the document.
- **4.4.1 Cancelled documents.** Since shelf life items have been procured to cancelled documents and they are actively stocked, there is a need to list these documents in this handbook along with their corresponding shelf life.
- **4.4.2 Supersession.** In order to determine the proper shelf life of an item when referring to documents, the characteristics of the end item procured must be known. If a document has been superseded and is specified on the contract, then a determination must be made on which document the delivered item meets (i.e., does the delivered item meet the cancelled document or the superseding document?).
- **4.4.3 Superseding documents.** The parenthetical documents (superseding documents) listed after the document title in Tables II, III, and IV are not listed solely for the purpose of supersession. A parenthetical document is listed with the cancelled document only if it has been procured. If the superseding document has been procured then it appears in the corresponding table under its own document identifier. If the superseding document had no procurement in 10 years then it is not listed with the cancelled document nor is it listed under its own document identifier.

5. NOTES

5.1 Intended use. This handbook establishes guidelines for time periods for the expected shelf life of rubber products during storage. The information contained in this handbook is intended as a guide for use by those agencies whose responsibility is to place control requirements on rubber products, as well as those activities whose responsibility is to control the age of products stocked in federal government storage facilities.

5.2 Subject term (key word) listing.

Age control Elastomeric Silicone

5.3 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

TABLE I. Age resistance generally associated with products fabricated from various rubbers.

Type of Rubber 1/	Common or Trade Name	ASTM D1418 ABBREVIATION
	20 Years Minimum	
Silicone	Silicone	Q
Fluorosilicone	Silastic LS	FVMQ
Polysulfide	Thiokol	T
Fluorocarbons	Fluorel, Viton	FKM
Polyacrylate	Acrylic	ACM, ANM
Perfluorocarbon	KALREZ	FFKM
Isobutylene/Isoprene	Butyl	IIR
Ethylene/propylene/diene	Ethylene propylene diene terpolymer	EPDM
Ethylene propylene	Ethylene propylene copolymer	EPM
	15 Years Maximum	
Butadiene/acrylonitrile	Nitrile, NBR	NBR
Chlorosulfonated		
Polyethylene	Hypalon	CSM
Polychloroprene	Neoprene	CR
	5 Years Maximum	
Polyester urethane <u>2</u> /	Urethane	AU
Polyether urethane	Urethane	EU
	3 Years Maximum	
Butadiene/styrene	SBR	SBR
Cis 1, 4, polyisoprene	Natural, pale crepe	NR
Cis 1, 4, polyisoprene	Synthetic natural	IR

^{1/} Table I lists types of rubber used in end items that are actively procured. See Table V for rubber types listed in previous revisions.

^{2/} Some polyester urethanes have very poor resistance to water and humidity.

TABLE II. Documents.

			Elasto	omers	E 4.1
	Identifier	Title/Description	Required	Commonly Used	Expected Shelf Life (Yrs)
	MIL-DTL-17	Cables, Radio Frequency, Flexible and Semirigid, General Specification for (Coaxial, Dual Coaxial, Twin Conductor, & Twin Lead):			
		Core Dielectric:	CMNI		*
		Types D, E and H	SYN IIR		
		Type J			20
		Type L	Q		20
		Jacket:	CD		1.5
		Type IV	CR		15
		Type VI	Q		20
	MIL DEL 442	Type VIII	CR		15
	MIL-DTL-442	Cable, (Wire), Two Conductor, Parallel (Ripcord)	CDD		2
	MII I 741	Types IV, V and VI	SBR		3
su	MIL-L-741	Leads, Electrical, Arc Welding (see <i>J-L-2744</i>)	SBR		3
Military Specifications	MIL-C-882	Cloth, Duck, Cotton or Cotton – Polyester Blend, Synthetic Rubber, Impregnated, and Laminated,			
cif		Oil Resistant	CD		1.5
pe		Class I	CR		15
S V	IVI PPE 000	Class II	NBR		15
tar.	MIL-PRF-900	Rubber Gasket Material, 45 Durometer Hardness	SBR		3
lili.	MIL-DTL-915	Cable, Electrical, for Shipboard Use, General			
Z		Specification for	CVN 6 CD		*
		Type CVSF	SYN & CR		*
		Type DCOP	SYN & CR		
		Type DHOF Type DSS	IIR & CR SYN & CR		15 *
		Type DSS Type DLT	NR & CR		*
		Type FSCF	IIR & CR		15
		Type FHOF	IIR & CR		15
		Type FSS	SYN & CR		*
		Type JAS	IIR & CR		15
		Type MCSC	SYN & CR		*
		Type MCOS	CR		15
		Type MSS	SYN & CR		*
		Type SDU	IIR & CR		15
		Type SSF	SYN & CR		*
		Type TCOP	SYN & CR		*
		Type THOF	IIR & CR		15
		Type TRF	SYN & CR		*
		Type TRXF	CR		15
		Type TSS	SYN & CR		*

TABLE II. Documents – Continued.

			Elastomers		Expected	
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)	
	MIL-G-1086	Gasket Material, Synthetic Rubber (For Bolted		CSCU	Life (115)	
		Steel Tanks) (see MIL-PRF-6855)				
		Type I		CR	15	
		Type II		NBR	15	
	MIL-PRF-1149	Gasket Materials, Synthetic Rubber, 50 and 65 Durometer Hardness				
		Class 1 - Types I & II	CR		15	
		Class 2 - Types I & II	SBR		3	
		Class 3 - Types I & II	IIR		20	
Military Specifications		Class 5 - Types I & II	NBR		15	
	MIL-R-1229	Rubber Sheet Packing, Solid, Wire Cloth Inserted, Symbol 2354	Required Commonly Used Lift CR NBR CR SBR IIR NBR CR NR (core) Int SS CR NBR SE ASTM D2000 SE ASTM D1056 SBR SBR (insulator) SBR SBR (insulator) SBR SBR (insulator) SBR CCSM Q	3		
	MIL-P-2693	Packing Material, Cold Storage Door Gasketing, Nonwatertight				
		Type A		CR	15	
		Type B		NR (core)	3	
	MIL-PRF-2912	Synthetic Rubber Compound, Acid & Oil Resistant				
		(For Lining Battery Compartments on Submarines)				
pe		Class 1 - Types I & II			15	
y S		Class 2 - Types I & II	NBR		15	
tar	MIL-G-3036	Grommets, Rubber, Hot-Oil & Coolant-Resistant		NBR	15	
lili		(see NASM 3036)				
N	MIL-R-3065	Rubber, Fabricated Products	see	ASTM D200	00	
	MIL-C-3133	Cellular Elastomeric Materials, Molded or Fabricated Parts (see ASTM D1056)	see	ASTM D105	6	
	MIL-DTL-3432	Cable, (Power and Special Purpose) and Wire, Electrical (300 and 600 volts)				
		Class C	SBR		3	
		Class O			3	
		Class L	SBR		3	
		Class D			3	
	MIL-DTL-3533	Rubber, Synthetic; Sheet, Strip & Molded	(IIIouiutoi)			
	<i> </i>	Types I & II - Classes 1 & 2		NBR	15	
	MIL-DTL-3702	Cable, Power, Electrical: Ignition, High-Tension			-	
		Grade B		Q	20	
		Grade C		_	15	
		Grade D			20	
	MIL-H-3868	Hose Assemblies, Nonmetallic: Grease Gun High & Low Pressure (see <i>SAE J517</i>)	CR		15	

TABLE II. Documents – Continued.

			Elastomers		Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	MIL-I-3930	Insulating & Jacketing Compounds, Electrical (For			
		Cables, Cords & Wires), General Specification for			
		Type IS	SBR		3
		Type IS-L	SBR		3
		Type IR	NR		3
		Type IL	NR		3 3 3 3 3 3
		Type IJ-S	SBR		3
		Type IL-H	NR		3
		Type IL-RN	NR		3
Si		Type JS	SBR		3
Military Specifications		Type JS-L	SBR		3
		Type JR	NR		
		Type JN	CR		15
eci		Type JN-L	CR		15
Spe	MIL-B-4792	Bumper, Rubber, Duplex Round			
ry		Type I		SBR(core)	3
ita		Type II	NR/SYN		*
<u> </u>	MIL-R-5001	Rubber, Cellular Sheet, Molded & Hand-Built			
V		Shapes; Latex Foam (see SAE AMS-R-5001)			
		Composition 1	NR		3
		Composition 2	NR		3
	MIL-DTL-5423	Boots, Dust & Moisture Seal (For Toggle and			
		Push-Button Switches, Circuit Breakers, & Rotary-			
		Actuated Parts), General Specification for			
		All Types & Styles	Q		20
	<i>MIL-DTL-5498</i>	Accumulators, Hydraulic, Cylindrical 3000 psi,			
		Aircraft			
		Type I		NBR	15
	MIL-C-5651	Cord, Elastic, Exerciser & Shock Absorber for			
		Aeronautical Use			
		All Types	NR		3

TABLE II. Documents – Continued.

			Elastomers		Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	MIL-R-6130	Rubber, Cellular, Chemically Blown (see ASTM			
		D6576)			
		Grade A - Types I & II		CR	15
		Conditions Soft, Medium & Firm		app	2
		Grade B - Types I & II		SBR	3
		Conditions Soft, Medium & Firm		NID	2
		Grade C - Types I & II		NR	3
	MIL D (2/2	Conditions Soft, Medium & Firm		NID	2
	MIL-B-6362	Boots, Extreme Cold Weather, N-1B	CD	NR	3
	MIL-DTL-6615	Hose Assemblies, Rubber, Fuel and Water, with Reattachable Couplings, Low Temperature,	CR		15
		General Specification For			
	MIL-PRF-6855	Rubber, Synthetic, Sheets, Strips, Molded or			
	WIL-I KI -0033	Extruded Shapes, General Specification for			
Military Specifications		Class 1 - All Grades		NBR	15
		Class 2 - All Grades		CR	15
		Class 3 - All Grades		SBR	3
cifi		Class 4 - All Grades		CR	15
pe		Class 5 - All Grades		SBR	3
ry S	MIL-M-7585	Mask, Oxygen (use MIL-M-27274)	Q		20
ita	MIL-C-8068	Cloth, Coated, Nylon, Rubber-Coated, Fuel-			
Mil		Resistant			
I		Type I		NBR	15
		Type II		NBR	15
		Type III		NBR	15
	MIL-C-8603	Clamps, Loop Type, and Straps, Support	NBR		15
			Q		20
			CR		15
			FVMQ		20
			EPDM		20
	MIL-DTL-8777	Wire, Electrical, Silicone-Insulated, Copper, 600 Volt, 200 °C	Q		20
	MIL-A-8897	Accumulators, Hydraulic, Cylindrical, 3,000 psi	NDD		15
		Aircraft (see MIL-DTL-5498)	NBR		15
	MIL-C-10369	Cable, Telephone, Field, For Rapid Payout (MX-306 A/G)	SBR		3
	MIL-DTL-10392	Cord, Electrical (Audio, Miniature)	SBR		3
	MIL-C-10797	Cloth, Glass, Silicone Rubber Coated	Q		20

TABLE II. Documents – Continued.

			Elasto	omers	Expected
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)
	MIL-PRF-11588	Hose Assemblies, Rubber, Synthetic, Liquid Petroleum Fuels, Dispensing, Collapsible, Standard and Low Temperature			
		All Types	NBR (Tube)		15
	MIL-P-11719	Packing, Preformed, Pneumatic Hose Couplings, Universal	CR		15
	MIL-DTL-11891	Track Shoe Sets, Track Shoe Assemblies, Track Shoe Pads and Track Shoe Bushings, Vehicular: Elastomerized		ann 140	
		Types I & II		SBR NR or BR	3
	MIL-C-11997	Cord Assembly, Electrical CX-2151()/U Retractile	NR (insulation)		3
Military Specifications	MIL-C-12189	Cloth, Coated, Butyl Coated, Toxicological Agents, Protective All Types & Classes	IIR		20
S_p	MIL-G-12223	Gloves, Toxicological Agents Protective	IIR		20
ıry	MIL-DTL-13169	Wire, Electrical (For Instrument Test Leads)	SBR		3
Milita	MIL-DTL-13273	Cord, Electrical (Retractile, 2, 3 & 4 Conductor, WD-9/U, WT-2/U, WF-4/U)	NR (insulation)		3
	MIL-DTL-13444	Hose & Hose Assemblies, Rubber: Fuel & Oil (For Automotive Application) Types I & II		NBR (Tube)	15
	MIL-DTL-13486	Cable, Special Purpose, Electrical: Low-Tension, Heavy-Duty, Single Conductor & Multiple Conductor, Shielded & Unshielded, General Specification for Types I & II		CR	15
		**		(Jacket)	
	MIL-DTL-13531	Hose and Hose Assembly, Rubber (Hydraulic, Pneumatic, Flexible)	NBR (Tube)		3
	MIL-DTL-13719	Hose and Hose Assembly, Rubber, Hydraulic Brake, Type I and Type II	SBR or CR (Tube)		*
	MIL-C-14055	Cup, Hydraulic Brake Actuating Cylinder: Synthetic Rubber	SBR		3
	MIL-T-14398	Tanks, Fabric, Collapsible: Water, Nylon Rubber-Coated	EPDM		20

TABLE II. Documents – Continued.

			Elasto	Elastomers	
	Identifier	Title/Description	Required	Commonly Used	Expected Shelf Life (Yrs)
	MIL-P-14401	Pads, Cushioning; Personnel-Protection,	Required	CBCu	Life (113)
	MILI TITOI	Vehicular (see <i>A-A-52430</i>)			
		Types I & II, Class CS		SBR	3
		Type I, Class FR		NR or CR	*
	MIL-P-14574	Packing (Wiper Ring), Synthetic Rubber Cloth		CR or	15
		Insertion		NBR	
	MIL-R-15058	Rubber, Shaft Covering Materials (For Marine			
		Propeller Shafts)			
		Types I, II & III			
		Class I	CR		15
		Class II	SBR		3
ns		Class III	NBR		15
Military Specifications	MIL-H-0015100	Hose, Rubber, Wire Reinforced (Oil & Gasoline,			
fice		Suction & Discharge Smooth Bore)			
eci		Types A & B	NBR		15
Spe			(Tube)		
3	<i>MIL-PRF-15624</i>	Gasket Material, Rubber, 50 Durometer Hardness			
ita		(Maximum)			
1il		Class I	CR		15
V		Class II	SBR		3
-		Class III	NBR		15
	MIL-C-16839	Cable, Special Purpose, Electrical (Underwater	NR		3
-	107 16 15101	Use)			
	MIL-M-17191	Mounts, Resilient: Portsmouth Bonded Spool			
		Type Network Costings	NR		2
		Natural Coatings	CR or NBR		3 15
-	MIL-DTL-17505	Synthetic Coatings Hose & Hose Assembly, Rubber, Oil & Gasoline,	NBR		15
	MIL-DIL-1/303	Suction & Discharge	(Tube)		13
-	MIL-M-17508	Mounts, Resilient: Types 6E100, 6E150, 7E450,	(Tube)		
	WIIL-WI-1/JUU	6E900, 6E2000, 5E3500, 6E100BB, 6E150BB,			
		7E450BB, 6E900BB			
		Types 6E200, 6E900, & 7E450	CR or NBR		15
		Types 6E150 & 6E100	NR		3

TABLE II. Documents – Continued.

			Elasto	omers	Expected
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)
	MIL-PRF-17927	Gaskets, Flame Resistant Hinged Closure	Q		20
	MIL-I-18057	Insulation Sleeving, Electrical, Flexible, Glass Fiber, Silicon Rubber Treated (see <i>MIL-I-3190</i>)	Q		20
	MIL-H-18158	Hose Ducting, Low Pressure, Naval Shipboard Portable, Ventilating Set Use	CR		15
	MIL-M-18351	Mattress & Mattress Ticks, Berth, Synthetic Cellular Rubber, Naval Shipboard All Types	CR		5
	MIL-C-19002	Cloth, Coated, & Strip, Coated Cloth - Polychloroprene on Nylon (Pneumatic Life Preserver) Type I	CR		15
Military Specifications	MIL-M-19379	Mounts, Resilient, Mare Island Types, Types 11M15, 11M25, & 10M50	CR or NBR		15
cifica	MIL-C-19787	Cable, Electric, Torpedo, 65 Conductor (For Torpedo Control, Electric Setting)	CR (Sheath)		15
pec	MIL-M-19863	Mount, Resilient, Type 5B5, 000H	NR		3
y S	MIL-P-19918	Packing, V Ring		NBR	15
lilitar	MIL-DTL-20078	Gasket for Ballistic Doors and Hatches Type B		SBR	3
W	MIL-PRF-20092	Rubber or Plastic Sheets and Assembled and Molded Shapes, Synthetic, Foam or Sponge, Open Cell Class 1 - Types I & II All Conditions	CR		15
		Class 3 - Types I & II All Conditions	CR		15
	MIL-DTL-20176	Hose & Hose Assembly, Rubber, Smooth Bore, Light- Weight Sewage Discharge and Oily Waste Discharge		NBR	15
	MIL-PRF-20696	Cloth, Waterproof, Weather Resistant Types I & II, Classes 1 & 3	CR		15
	MIL-R-21252	Rubber Sheet, Solid, Synthetic, Shipboard Water Evaporator Gasketing	SBR		3
	MIL-S-21558	Seal, Oil, Plain or Plain Encased		NBR	15
	MIL-G-21569	Gaskets, Cylinder Liner Seal, Synthetic Rubber Class I	NBR		15
		Class II	Q		20

 $\label{eq:TABLE II. Documents - Continued.} TABLE\ II.\ Documents - Continued.$

			Elasto	omers	Expected
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)
	MIL-G-21610	Gaskets, Heat Exchanger, Various Cross			()
		Section Rings, Synthetic Rubber			
		Type I	NBR		15
		Type II	Q		20
	MIL-M-21649	Mount, Resilient, Type 5M10,000-H	NR		3
	MIL-DTL-22050	Gasket & Packing Material, Rubber, For Use with Polar Fluids, Steam and Air at Moderately High Temperatures		IIR	20
Military Specifications	MIL-H-22240	Hose, Rubber, Petroleum Based Fuels and Water Services, Discharge Only, Smooth Bore, Lightweight Buoyant Type			
		Type A & B	NBR (Tube)		15
	MIL-C-22524	Cloth, Coated, Fire, Water, Mildew & Weather Resistant (see <i>MIL-C-43006</i>)	CSM		15
rry Sp	MIL-C-23020	Cable, Coaxial (For Submarine Use)	CR (Jacket)		15
Milita	MIL-DTL-23053/1	Insulation Sleeving, Electrical, Heat Shrinkable, Crosslinked Chlorinated Polyolefin, Flexible (use SAE-AMS-DTL-23053/1)	CR		15
	MIL-DTL-23053/10	Insulation Sleeving, Electrical, Heat Shrinkable, Silicone Rubber, Flexible (use SAE-AMS-DTL-23053/10)	Q		20
	MIL-C-23070	Cloth, Laminated, & Tape, Coated Cloth, Polyisoprene, Natural or Synthetic, Rubber on Nylon	NR or IR		3
	MIL-G-23652	Gasket & Packing Material Petroleum & Phosphate Ester Fluid Resistant (see <i>MIL-R-83248</i>)			
		Types I & II		FKM	20
	MIL-G-23983	Gasket & Packing Material, Oil Resistant Rubber, Access Hull Applications		CR	15

TABLE II. Documents – Continued.

			Elastomers		Expected
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)
	MIL-H-24135	Hose, Synthetic Rubber, Wire Reinforced for	Required	NBR	15
	WIL-11-24133	Flexible Hose Assemblies, General		NDK	13
		Specification For			
	MIL-H-24136	Hose, Synthetic Rubber, Synthetic Fiber		SBR or	*
	MIL 11 27130	Reinforced for Flexible Hose Assemblies,		NBR	
		General Specification For		11210	
	MIL-H-24520	Hose & Hose Assembly for Water Cooling of	EPDM		20
		Electronic Equipment			
	MIL-H-24580	Hose Assemblies, Synthetic Rubber,			
		Noncollapsible, Fire Fighting			
		Types A & B	EPDM		20
	MIL-DTL-25579	Hose Assembly, Polytetrafluoroethylene, High	IIR (Cover)		20
		Temperature, Medium Pressure, General	ĺ		
		Specification For			
	MIL-R-25897	Rubber, Fluorocarbon Elastomer, High-	FKM		20
		Temperature, Fluid Resistant (see MIL-R-	11011		20
S		83248)			
Military Specifications	MIL-PRF-26514	Polyurethane Foam, Rigid or Flexible, for			
at		Packaging,			
ifi		Type I	AU		5
sec	MIL-DTL-26521	Hose Assembly, Nonmetallic, Fuel,	CR		15
S_{I}		Collapsible, Low Temperature, With Non-			
ury .		reusable Couplings			
lite	MIL-DTL-26633	Hose Assembly, Nonconductive,	CR (Cover)		15
Mi		Polytetrafluoroethylene, Oxygen			
	MIL-DTL-26666	Hose Assembly, Pneumatic, High Pressure	CR (Cover)		15
	MIL-C-26712	Cloth, Coated, Nylon, Chloroprene-Coated	CR		15
	MIL-M-27274	Mask, Oxygen MBU-5/P	Q		20
	MIL-S-27332	Seat Cushion Insert, Polyurethane Foam	AU, EU		5
	1411 500 40014	Plastic, General Specification for	1700 (1)		
	<i>MIL-DTL-27516</i>	Hose and Hose Assembly, Nonmetallic,	NBR(tube)		15
	MIL II 20506	Suction and Discharge		IID CD	1.5
	MIL-H-28596	Hose and Hose Assembly, Rubber, Steam (see		IIR, CR, EPDM	15
	MIL-DTL-29210	A-A-59159) Hose Assembly, Rubber, Metal Lined, Wire	IIR or	EFDM	20
	WIIL-DIL-29210	Reinforced, 250 psig, Saturated Steam Service	EPDM		20
		Remitted, 230 psig, Saturated Steam Service	(Tube)		
	MIL-B-41816	Boots, Cold Weather, Insulated, Rubber (Wet-	NR		3
	MIL D 41010	Cold; Dry-Extreme Cold)	T T T		3
	MIL-A-41829	Apron, Utility, Impermeable, Rubber	CR		15
	1111211 1102)	Coated Fabric (General Purpose) (see <i>A-A-</i>			13
		55063)			
	MIL-DTL-43002	Shield, Stovepipe, Tent, Nonmetallic	Q		20
	MIL-C-43006	Cloth and Strip, Laminated or Coated, Vinyl-	CSM		20
		Nylon or Polyester High Strength, Flexible			

TABLE II. Documents – Continued.

			Elastomers		Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	<i>MIL-PRF-43473</i>	Cloth, Waterproof	AU or EU		5
	MIL-S-45005	Seal, Plain, & Seal, Plain Encased: Fluid, Radial, Single & Multiple Lip Sealing Member, Spring-Loaded (see <i>A-A-52524</i>)		NBR	15
	MIL-B-45326	Boot, Dust & Moisture Seal: Hydraulic Brake Cylinder, Synthetic Rubber		SBR	3
	MIL-M-45907	Mount, Shipping Container, Resilient: Shock & Vibration Damping (see <i>A-A-52486</i>)		NR	3
	MIL-R-46089	Rubber Sponge, Silicone, Closed Cell (use <i>ASTM-D1056</i>)	Q		20
	<i>MIL-PRF-46846</i>	Rubber, Synthetic, Heat-shrinkable			
		Type I	CR		15
		Type II	Q		20
		Type III	FKM		20
		Type IV	IIR		20
suo		Type V	EPM		20
cati		Type VI	EPDM		20
cifi	<i>MIL-DTL-43976</i>	Gloves And Glove Set, Chemical Protective	NBR		15
Military Specifications	MIL-DTL-52286	Cable Assemblies, Power, Electrical (with Molded on Terminations)	SBR		3
Milita	MIL-DTL-52471	Hose & Hose Assemblies, Rubber, Hydraulic Pressure Type, General Specification for	NBR (Tube)		15
I	MIL-DTL-55036	Cable, Telephone, WM-130 ()/G	CR (Jacket)		15
	MIL-R-81090	Rubber, Electrically Conductive Fuel, Resistant		NBR	15
	MIL-DTL-81581	Hose Assembly, Breathing Oxygen & Air, General Specification for		Q	20
	MIL-G-82242	Glove Shells, Radioactive Contaminants, Protective	NR		3
	MIL-C-82255	Cloth, Coated, Synthetic Rubber (Nitrile & Polychloroprene)			
		Types I, II, IV	CR		15
		Type III	NBR		15
	MIL-R-83248	Rubber, Fluorocarbon Elastomer, High Temperature, Fluid, And Compression Set Resistant (see SAE AMS 7276, SAE AMS 7259, SAE AMS 3216, and SAE AMS 3218)	FKM		20
	MIL-R-83285	Rubber, Ethylene-Propylene, General Purpose (see <i>SAE AMS-R-83285</i>)	EPDM		20
	MIL-DTL-83797	Hose, Rubber, Lightweight, Medium Pressure, General Specification for		NBR	15

TABLE II. Documents – Continued.

			Elasto	omers	Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	MIL-STD-417	Classification System and Tests for			
		Solid Elastomeric Materials			
		(Rubber Compositions, Vulcanized General)			
		Purpose Solid			
sp		Class RN with Suffix A	NR	IIR or	3
lar		Class RS with Suffices $A_1 C_1$		SBR	3
ına		Class SA		T	20
Sta		Class SB		NBR	15
3		Class SC		CR	15
ita		Class TA		Q	20
Military Standards		Class TB		ACM	20
V	MIL-STD-670	Classification System and Tests for Cellular			
		Elastomeric Materials			
		Type R – Styles C, E, O & U		NR or	3
				SBR	
		Class SB – Styles E & O		NBR	15
		Class SC – Styles E & O		CR	15
		Types T – Styles E & O		Q	20
		Types U – Styles C & U		AU or EU	5
	J-C-175	Cable Assembly, Power, Electrical, For 125-Volt,		CR	3
		250-Volt, and 125/250-Volt, 50-60 Hz,			
		Equipment (see <i>UL 817</i>)			
	J-C-580	Cord, Electrical & Wire, Electrical (0- to 600-Volt			
		Service)(see <i>UL 62</i>)			
S		Types C, K, P, P-2, PD, PO-2, PW PW-2, S,	CR (Outer		15
on		SO, SJ, SJO, SP-2, AFS, HC, HPD, HS, HSJ,	Jacket)		
atı		HSJO, HSO, HPN, SP-3, SV, SVO, E, EO,			
ific		SRD, SRDT, RF-2, FF-2, RFH-2 and FFH-2			
ral Specifications		Types SF-2 & SFF-2	Q		20
Sp	J-L-2744	Leads, Electrical, Arc-Welding			
lp.		GRADE A		CR	15
der		GRADE B		CR	15
Feder		GRADE C		EPDM	20
,	L-P-386	Plastic Material, Cellular, Urethane Flexible	AU, EU		5
	HH-I-573	Insulation Sleeving, Thermal (see ASTM C534)		EU, AU	5
	HH-P-151	Packing; Rubber Sheet, Cloth Insert	a-		
		Class 2	CR		15
		Class 3	SBR		3
		Class 4	NBR		15

TABLE II. Documents – Continued.

			Elasto	omers	Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	ZZ-B-206	Belting, Flat, Conveyor; Rubber	NR, IIR,		*
		(see MIL-B-52761) All Types	CR, or		
			SBR		
	ZZ-B-220	Belting, V, Adjustable Link			
		Type I	NR		3
	ZZ-B-586	Bag, Ice and Hot Water	NR, CR, or		*
		(see A-A-51294)	SBR		
	ZZ-C-101	Catheters, Urethral, Rubber			
		All Types	NR		3
	ZZ-F-1299	Finger Cot, Surgical Disposable (see A-A-50855)	NR		3
	ZZ-G-100	Gloves, Rubber, Autopsy			
Si		Class 1	NR		3
ion		Class 2	CR		15
Federal Specifications	ZZ-G-401	Gloves, Rubber (For) Electrical Workers (For Use		NR	3
ifi		in Connection with Apparatus or Circuits not			
ec		Exceeding 5,000 Volts to Ground) (see ASTM			
S_I		D120)			
ral	ZZ-H-421	Hose and Hose Assembly, Chemical (Industrial &		NR	3
de		Fire Fighting)			
Fe	ZZ-H-428	Hose, Non-metallic and Hose, Preformed: (For			
		The Coolant Systems of Automotive and Other			
		Liquid-Cooled Engines) (see SAE J20)			
		Class 1		NBR	15
		Class 2		CR	15
		Class 3		EPDM	20
		Class 4		IIR	20
	ZZ-H-461	Hose and Hose Assembly, Rubber, Gas			
		(Acetylene - Hydrogen, Air and Oxygen)			
		All Grades & Types	SBR		3
	ZZ-H-500	Hose, Rubber & Hose Assemblies, Rubber:		CR	15
		Pneumatic (Yarn or Fabric Reinforced) (see A-A-			
		59565)			
	ZZ-H-561	Hose, Rubber, and Hose Assemblies, Rubber,		CR	15
		Smooth Bore, Water Suction and Discharge (see			
		A-A-59566)			

TABLE II. Documents – Continued.

			Elasto	omers	Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	ZZ-I-550	Inner Tube, Pneumatic Tire			
ions		All Classes & Groups	NR or IIR		*
	ZZ-R-690	Rubber Dam, Dental (see A-A-53986)		NR	3
ficat	ZZ-R-768	Rubber for Mountings (Unbonded-spool and Compression Types)	NBR		15
Federal Specifications	ZZ-R-1415	Rubber Band	NR, SBR, IR or SYN		*
der	ZZ-T-401	Tire, Pneumatic; Inner Tube, Pneumatic			
Fe		Tire; (Bicycle)			
		Tubes	IIR		20
	ZZ-T-416	Tire, Pneumatic: Retread And Repair Materials (see <i>A-A-52518</i>)	NR, IR, BR SBR		*
	ZZ-T-831	Tubing, Rubber and Plastic (see <i>A-A-52047</i>) Grade C & L	NR		3
	A-A-2800	Cushion, Chair And Stool	AU, EU		5
	A-A-50855	Finger Cot, Surgical, Disposable	NR		3
	A-A-51294	Bag, Hot Water-Ice	NR, CR, or SBR		*
su	A-A-52047	Tubing, Nonmetallic (Rubber And Plastic)	NR/SYN		*
tio			SYN		*
rip			NR		3
SC			NR, IR		3
Commercial Item Descriptions	A-A-52404	Insulation Sheet, Cellular, Plastic: Thermal (Metric)	AU,EU		5
al Ite	A-A-52430	Pads, Cushioning: Personnel-Protection, Vehicular (Metric)			
rci		Class CS		NR	3
me		Class FR	NBR		15
Com	A-A-52518	Tire, Pneumatic: Retread And Repair Materials	NR, IR, BR SBR		*
	A-A-53848	Tubing, Nonmetallic, Rubber	NR		3
	A-A-53986	Rubber Dam (Dental)	NR		3
	A-A-55063	Apron, Utility, Impermeable Rubber Coated Fabric (General Purpose)	CR or IIR		15

TABLE II. Documents – Continued.

			Elasto	omers	Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	ASTM D1048	Rubber Insulating Blankets	NR or IR		3
	ASTM D1055	Flexible Cellular Materials - Latex Foam			
		Grades RC & RU		NR	3
	ASTM D1056	Flexible Cellular Materials-Sponge or Expanded			
		Rubber			
		Types I & II Class A	NR		3
		Types I & II Class B	NBR		15
		Types I & II Class C	NBR		15
		Types I & II Class D	CR		15
onal	ASTM D3574	Flexible Cellular Materials Slab, Bonded, and Molded Urethane Foams	AU, EU		5
nati	ASTM D2000	Rubber Products In Automotive Applications Classification System for			
ASTM International		Material Designation AA with Suffix A13	NR, SBR or IIR		*
3		Material Designation AK	T		20
S		Material Designation BA with Suffices A14 &	_	SBR or	*
A		C12		IIR	
		Material Designation BC		CR	15
		Material Designation BE		CR	5
		Material Designation BF		NBR	15
		Material Designation BG		AU, EU	5
		Material Designation BK		T	20
		Material Designation CE		CSM	15
		Material Designation CH		NBR	15
		Material Designation DH		ACM	20
		Material Designation FC		Q	20
		Material Designation FK		FVMQ	20
		Material Designation GE		Q	20
		Material Designation HK		FKM	20
	NAS 617	Packing, Preformed, Straight Thread Tube Fitting		NBR	15
0)		Boss, Synthetic Lubricant Resistant			
ace	NAS 1369	Duct, Air, Flexible & Semi-Rigid			
ds		Type A	Glass		15
ero			Fabric		
A			impreg		
National Aerospace			with CR		
ioi		Type B	Glass		20
Vat			Fabric		
~			impreg		
			with Q		

TABLE II. Documents – Continued.

			Elastomers		Expected
	T		D . 1	Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	NAS 1370 thru	Duct, Air, Flexible, Helix Wire Supported			
	NAS 1379	-65 to +275 °F	Fiberglass impreg with CR		15
National Aerospace Standards		-75 to +500 °F	Fiberglass impreg with Q		20
ına	NAS 1515	Washers - Plastic & Synthetic Rubber			
Sta		Code Letter A	ZZ-R-765		20
23		Code Letter B	ZZ-R-765		20
ba		Code Letter C		NBR	15
os.		Code Letter D		CR	15
4e1		Code Letter E		CR	15
al'		Code Letter F		NBR	15
ouo		Code Letter J	CR		15
ati		Code Letter K	IIR		20
Z		Code Letter L	FKM		20
		Code Letter M	FKM		20
	NAS 1593	Packing, Preformed - <i>MIL-R-25897</i> Rubber, 75 Shore O-Ring	FKM		20
	NAS 1598	Washer - Sealing			
		Code Y		NBR	15
		Code R		FVMQ	20
		Code N		IIR	20
	NASM 3036	Grommets, Rubber, Hot-Oil And Coolant Resistant		SYN	*
				Q	20

TABLE II. Documents – Continued.

			Elastomers		Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	AMS3195	Silicone Rubber Sponge Closed Cell, Medium	Q		20
	AMS 3196	Sponge, Silicone Rubber, Closed Cell, Firm	Q		20
	AMS3197	Sponge, Chloroprene (CR) Rubber, Soft	CR		15
	AMS3198	Sponge, Chloroprene (CR) Rubber, Medium Stiffness	CR		15
	AMS3199	Sponge, Chloroprene (CR) Rubber, Firm	CR		15
	AMS3200	Butadiene Acrylonitrile (NBR) Rubber Petroleum-Base Hydraulic Fluid Resistant 55 - 65	NBR		15
suo	AMS3201	Butadiene Acrylonitrile (NBR) Rubber Dry Heat Resistant 35 - 45	NBR		15
ificati	AMS3202	Butadiene Acrylonitrile (NBR) Rubber Dry Heat Resistant 55 - 65	NBR		15
SAE International Aerospace Materials Specifications	AMS3204	Rubber Synthetic Low-Temperature Resistant 25 - 35	CR		15
rials	AMS3205	Synthetic Rubber Low-Temperature Resistant 45 – 55	CR		15
Mate	AMS3207	Chloroprene (CR) Rubber Weather Resistant 25 - 35	CR		15
space	AMS3208	Chloroprene (CR) Rubber Weather Resistant 45 - 55	CR		15
Aero	AMS3209	Chloroprene (CR) Rubber Weather Resistant 65 - 75	CR		15
ional	AMS3210	Chloroprene (CR) Rubber Electrical Resistant 65 - 75	CR		15
ernat	AMS3216	Fluorocarbon (FKM) Rubber High-Temperature - Fluid Resistant Low Compression Set 70 to 80	FKM		20
E Int	AMS3218	Fluorocarbon (FKM) Rubber High-Temperature- Fluid Resistant Low Compression Set 85 to 95	FKM		20
SA	AMS3220	Rubber, Synthetic General Purpose, Fluid Resistant 55 - 65	NBR		15
	AMS3222	Synthetic Rubber Hot Oil Resistant, High Swell 45 - 55	CR		15
	AMS3270	Chloroprene (CR) Rubber Sheet, Cotton Fabric Reinforced, Weather Resistant	CR		15
	AMS3274	Acrylonitrile Butadiene (NBR) Rubber Sheet and Molded Shapes Nylon Cloth Reinforced, Fuel Resistant	NBR		15
	AMS3315	Silicone (VMQ) Rubber Sheet, Glass Cloth Reinforced	Q		20
	AMS3320	Silicone (VMQ) Rubber Sheet, Glass Cloth Reinforced Heat & Weather Resistant 60 - 80	Q		20

TABLE II. Documents – Continued.

			Elaste	omers	Expected
	Identifier	Title/Description	Required	Commonly Used	Shelf Life (Yrs)
	AMS3570	Foam, Flexible Polyurethane Open Cell, Medium Flexibility	AU, EU	Oscu	5
	AMS-R-5001	Rubber Cellular Sheet, Molded And Hand- Built Shapes; Latex Foam		NR	3
	AMS-C-6183	Cork and Rubber Composition Sheet; for Aromatic Fuel and Oil Resistant Gaskets		NBR	15
	AMS-R-6855	Elastomer, Synthetic, Sheets, Strips, Molded or Extruded Shapes, General Specification for (see MIL-PRF-6855)			
ions		Class 1 - All Grades Class 2 - All Grades		NBR CR	15 15
cat		Class 2 - All Grades Class 3 - All Grades		SBR	3
ifi		Class 4 - All Grades		CR	15
pec		Class 5 - All Grades		SBR	3
terials S	AMS7259	Rings, Sealing, Fluorocarbon (FKM) Rubber High-Temperature-Fluid Resistant Low Compression Set 85 To 95	FKM	SDR	20
e Ma	AMS7263	Rings, Sealing, Butyl Rubber - Phosphate Ester Hydraulic Fluid Resistant (85-95)	IIR		20
erospac	AMS7275	Rings, Sealing, Synthetic Rubber-Synthetic Lubricant Resistant (65-85) Fluorocarbon Type	FKM		20
SAE International Aerospace Materials Specifications	AMS7276	Rubber: Fluorocarbon (FKM) High- Temperature-Fluid Resistant Low Compression Set For Seals In Fuel Systems and Specific Engine Oil Systems	FKM		20
E Interi	AMS7277	Rings, Sealing, Synthetic Rubber Phosphate Ester Hydraulic Fluid Resistant Butyl Type (70-85)	IIR		20
SA	AMS7279	Rings, Sealing, Fluorocarbon Rubber High- Temperature-Fluid-Resistant 85 - 95 (see <i>AMS</i> 7259)	FKM		20
	AMS7280	Rings, Sealing, Fluorocarbon Rubber High- Temperature Fluid Resistant, Low Compression Set FKM Type (70-80) (see AMS 7276)	FKM		20
	AMS-DTL-23053/1	Insulation Sleeving, Electrical, Heat Shrinkable, Crosslinked Chlorinated Polyolefin, Flexible	CR		15
	AMS-DTL-23053/10	Insulation Sleeving, Electrical, Heat Shrinkable, Silicone Rubber, Flexible	Q		20
	AMS R-83285	Rubber, Ethylene-Propylene, General Purpose		EPDM	20

TABLE II. Documents – Continued.

			Elast	omers	Expected
				Commonly	Shelf
	Identifier	Title/Description	Required	Used	Life (Yrs)
	SAE J20	Coolant System Hoses			
		Class A		Q	20
		Class B		NBR	15
		Class C		CR	15
		Class D		EPDM	20
	SAE J30	Fuel & Oil Hoses			
		SAE 30R1, 30R2, 30R3 & 30R5		NR (Tube)	3
	SAE J200	Classification System for Rubber Materials		(Tube)	
		Material Designation AA with Suffix A13		NR, SBR	*
				or IIR	
		Material Designation AK		T	20
		Material Designation BA with Suffices A14		SBR or IIR	*
1		& C12			
SAE International		Material Designation BC		CR	15
tio		Material Designation BE		CR	15
.ua		Material Designation BF		NBR	15
ter		Material Designation BG		AU, EU	5
In		Material Designation BK		T or NBR	20
4E		Material Designation CA		EPDM	20
S		Material Designation CE		CSM	15
		Material Designation CH		NBR	15
		Material Designation DH		ACM	20
		Material Designation FC		Q	20
		Material Designation FE		Q	20
		Material Designation FK		FVMQ	20
		Material Designation GE		Q	20
		Material Designation HK		FKM	20
	SAE J515	Specifications for Hydraulic O-Ring Materials,			
		Properties, and Sizes for Metric and Inch Stud			
		Ends, Face Seal Fitting and Four-Screw Flange			
		Tube Connections			
		Type I		NBR	15
		Type II		IIR	20
	SAE J1037	Windshield Washer Tubing			
		Type 1	CR		5
	SAE J1402	Automotive Air Brake Hose and Hose	CR		15
-	III 017	Assemblies		CD . HD	1.7
7.	UL 817	Standard For Safety: Cord Sets And Power-		CR or IIR	15
MISC.		Supply Cords			
M					
					

^{*}Shelf life cannot be determined because type of rubber is not specified.

TABLE III. Documents having material composition of natural or synthetic rubber.

	Identifier	Title/Description	Elastomers	Expected Shelf Life (Yrs)
Military Specifications	MIL-O-836 MIL-M-910 MIL-B-2885 MIL-DTL-3885 MIL-DTL-3885 MIL-I-5014 MIL-I-5014 MIL-I-5014 MIL-I-6439 MIL-H-7365 MIL-C-10351 MIL-DTL-11040 MIL-T-12459 MIL-I-14511 MIL-I-14511 MIL-H-15217 MIL-PRF-26385 MIL-PRF-26385 MIL-DTL-32066 MIL-DTL-32066 MIL-H-52079 MIL-H-52079 MIL-H-52262 MIL-B-52761	Title/Description Overshoes, Men's Rubber, 5 Buckle Type (see A-A-50362) Type I and II Mats, Floor, Standing Boots, Firemen's (see A-A-50371) Cable Assemblies & Cord Assemblies, Electrical (For Use in Electronic, Communication & Associated Electrical Equipment) Tires, Ribbed Thread, Pneumatic, Aircraft, General Specification for Inner Tube, Pneumatic Tire, Aircraft (see SAE AS50141) Cable, Power, Electric, Portable, General Specification for Hose, Rubber, Aircraft Paint Finish Remover Hose, Air Duct, For Ground Heaters Cloth, Laminated, Sateen, Rubberized Cloth, Laminated & Coated for Waterproof Containers Types I & II Belt, V: Engine Accessory Drive Tire, Pneumatic: For Military Ground Vehicles (see SAE J2014) Insulation Sheet, Cellular, Plastic, Thermal (see A-A-52404) Hose, Rubber, Sandblast Duct and Duct Assembly, Pneumatic, Flexible (see MIL-DTL-22706) Hose, Oxygen and Pressurization, Ozone Resistant Insulation Blankets, Electrical, 20,000 Volts Rating, with Eyelets (see ASTM D1048) Duct and Scuff Cover, Pneumatic, Flexible Gloves, Rubber, Industrial Rubber, Hard (Ebonite) Natural or Synthetic, Sheet, Strip, Rod, Tubing & Molded Parts (no superseding document) Grades A, B, C & D Hose, Preformed: Semi-Flexible Reinforced (see A-A-52546) Hose Assembly, Elastomeric: Lightweight, Collapsible, 4-inch Belting, Flat: Conveyor, Rubber Industrial Synthetic	NR or SYN	TBD
	MIL D 52/01	Reinforcement		

TABLE III. Documents having material composition of natural or synthetic rubber - Continued.

	Identifier	Title/Description	Elastomers	Expected Shelf Life (Yrs)
	A-A-132	Erasers		
	A-A-300	Dustpan		
	A-A-1870	Squeegees, Floor And Window		
	A-A-2854	Mat, Floor (Link-Type)		
	A-A-2991	Printing Set, Rubber Type		
	A-A-3034	Roller, Hand (Rubber Roller)		
	A-A-30081	Tip, Cane And Crutch		
8	A-A-50063	Boots, Knee And Hip (Rubber)		
on	A-A-50362	Overshoes, Men's, Rubber, 5 Buckle Type		
ipti	A-A-50371	Boots, Fireman's		
cr	A-A-52155	Engine Accessory Drive V-Belts		
)es	A-A-52160	Industrial V-Belts (Multiple Drives)		
n	A-A-52486	Mount, Shipping Container, Resilient: Shock and		
ter		Vibration Damping		
Commercial Item Descriptions	A-A-52490	Belts, V: Light-Duty Or Fractional-Horsepower		
ř.	A-A-52546	Hose, Preformed: Semi-Flexible, Reinforced		
neı	A-A-54194	Stopper, Bottle (Rubber, Solid)	NR or SYN	TBD
m	A-A-59159	Hose And Hose Assemblies, Rubber, Steam		122
Co	A-A-59226	Hose Assembly, Nonmetallic, Fire Fighting, With Couplings		
	A-A-59270	Hose And Hose Assemblies, Non-Metallic (Rubber, Plastic)		
	A-A-59565	Hose, Rubber, And Hose Assemblies, Rubber: Pneumatic (Yarn Or Fabric Reinforced)		
	A-A-59567	Hose And Hose Assemblies, Rubber (Yarn Or Fabric Reinforced) Water Service		
	ASTM C534	Preformed Flexible Elastomeric Cellular Thermal Insulation In Sheet And Tubular Form		
	ASTM D120	Rubber Insulating Gloves		
C.	ASTM D6576	Flexible Cellular Rubber Chemically Blown		
MISC.	SAE AS50141	Tube, Pneumatic Tire, Aircraft		
×	SAE J1403	Vacuum Brake Hose, Highway Vehicle		
	SAE J2014	Pneumatic Tires For Military Tactical Wheeled Vehicles		
	UL 62	Standard For Safety: Flexible Cords And Cables		

TABLE III. Documents having material composition of natural or synthetic rubber - Continued.

	Identifier	Title/Description	Elastomers	Expected Shelf Life (Yrs)
	<i>L-H-520</i>	Hose & Hose Assemblies, Nonmetallic (Rubber,	Diastonicis	Life (118)
	L-11-320	Plastic) (see A-A-59270)		
	GG-P-655	Printing Set, Rubber Type (see <i>A-A-2991</i>)	-	
	HH-F-341	Filler, Expansion Joint: Bituminous (Asphalt & Tar)	<u>-</u>	
		and Nonbituminous (Preformed for Concrete)		
		Type II, Class A		
	HH-G-156	Gaskets Material, General Purpose, Rubber Sheets,		
		Strips, & Special Shapes		
	HH-P-151	Packing; Rubber Sheet, Cloth Insert		
		Class 1	_	
	JJ-W-155	Webbing, Textile, (Cotton, Elastic)		
r.		Types I & II, All Classes		
ous	RR-T-650	Tread, Metallic & Nonmetallic, Skid-Resistant		
ati		Type A	- -	
fic	TT-I-600	Inking Pad, Rubber Stamp		
eci	77 P 100	Type III	NR or SYN	TBD
Federal Specifications	ZZ-B-190	Belt, V, Engine-Accessory-Drive, Minus 40°F, General		
ral	ZZ-B-215	Specification for (see A-A-52155)		
ge	ZZ-D-213	Belt, V, Light Duty or Fractional Horsepower (see <i>A-A-52490</i>)		
$F\epsilon$	ZZ-B-225	Belt, V, Industrial (Multiple Drive) (see <i>A-A-52160</i>)		
	ZZ-B-530	Boots, Knee & Hip (Rubber) (see A-A-50063)		
	22 2 200	Type I & II		
	ZZ-B-616	Bowl, Plaster of Paris Mixing	-	
	ZZ-C-766	Cushions, Chair and Stool (see A-A-2800)		
	ZZ-D-800	Dustpan (Rubber)	-	
	ZZ-E-661	Erasers, Rubber & Rubber Substitute (see <i>A-A-132</i>)		
		Types I, II, III & IVa		
	ZZ-G-381	Gloves, Rubber, Industrial (see MIL-DTL-32066)		
		Type I	_	
	ZZ-G-710	Gasket Material, Rubber 35 Durometer Hardness		
	ZZ-H-451	Hose, Fire, Woven Jacketed Rubber or Latex or Rubber		
		Coated Fabric Lined, with Couplings (see A-A-59226)	-	
	ZZ-H-466	Hose Assembly, Metal, (Rubber Covered),		
	77 11 501	Hydrocarbon Conveying	4	
	ZZ-H-521	Hose and Hose Assemblies, Nonmetallic, Spray		

TABLE III. Documents having material composition of natural or synthetic rubber – Continued.

	Identifier	Title/Description	Elastomers	Expected Shelf Life (Yrs)
	ZZ-H-601	Hose and Hose Assemblies, Rubber (Yarn or Fabric Reinforced) Water Service (see <i>A-A-59567</i>) Grade 1		
	ZZ-H-617	Hose, Rubber, Windshield Wiper Type I Type II		
	ZZ-M-42	Mats, Floor, Dental-Chair, Rubber	1	
	ZZ-M-46	Mat, Floor (Link-Type) (see A-A-2854) Classes 1, 2, 3 & 4		
	ZZ-M-91	Mattress, Bed, Latex Foam		TBD
Suc	ZZ-R-800	Rubber Stamp, Band Type		
ati	ZZ-R-804	Rubber Stamp, Fixed Type		
Federal Specifications	ZZ-S-751	Stoppers, Bottle, Rubber (see <i>A-A-54194</i>) All Types & Grades	NR or SYN	
) jpe	ZZ-T-351	Tips, Cane and Crutch, Rubber (see A-A-30081)		
al S	ZZ-T-381	Tires, Pneumatic, Vehicular (Highway)		
ler		All Types, Groups & Classes		
Fea	ZZ-T-391	Tire, Solid Rubber, and Wheels, Solid Rubber Tire, (Industrial)		
	ZZ-T-401	Tire, Pneumatic; Inner Tube, Pneumatic		
		Tire; (Bicycle)		
		Tires, Classes A & B		
	ZZ-S-666	Squeegees, Floor & Window		
	ZZ-T-410	Tires, Pneumatic, Industrial		
	ZZ-T-791	Tube, Stomach, Surgical (Formerly Tubes, Lavage &		
		Stomach)		
	ZZ-T-831	Tubing, Rubber and Plastic (see <i>A-A-52047</i>)		
		Grade A		
		Grade D		
	ZZ-T-1083	Tire, Pneumatic, Low Speed, Off Highway	_	
	ZZ-T-1619	Pneumatic, Agricultural	_	
	GGG-R-00620	Roller, Hand (Rubber Roller) (see A-A-3034)		

TBD - To Be Determined - Shelf life cannot be determined because type of rubber is not specified.

TABLE IV. Documents having material composition of synthetic rubber.

	Identifier	Title/Description	Elastomers	Expected Shelf Life (Yrs)
	MIL-T-1956	Tarpaulin, Waterproof, Special Purpose, 10 Feet Long by 8 Feet Wide All Classes		
	MIL-P-2911	Packing Assembly, Hydraulic, Conical & V Types		
	MIL-D-3377	Diaphragms, Synthetic Rubber		
ions	MIL-I-3190	Insulation Sleeving, Electrical, Flexible, Coated, General Specification for		
Military Specifications	MIL-DTL-3992	Hose & Hose Assembly, Rubber: Air & Vacuum Brake, Systems All Types & Classes		
S_p	MIL-DTL-6000	Hose, Rubber (Fuel, Oil, Coolant Water and Alcohol)		
litary	MIL-C-6183	Cork and Rubber Composition Sheet, for Aromatic Fuel and Oil Resistant Gaskets (see <i>AMS-C-6183</i>)		
Mi	MIL-B-6362	Boots, Extreme Cold Weather, N-1B		
I	MIL-H-6399	Hose, Rubber, Wire-Wound, Synthetic, Ice Eliminating System		
	MIL-DTL-15562	Matting or Sheet, Floor Covering, Insulating for High Voltage Application	SYN	TBD
	MIL-B-17901	Bearing Components, Bonded Synthetic Rubber, Water Lubricated		
	MIL-H-82127	Hose Assembly, Rubber (Synthetic): Fuel, Discharge, Collapsible		
	MIL-M-19417	Mask Assemblies, Oxygen & Smoke, Full Face		
	MIL-R-83322	Rubber, Carboxy-Nitroso; Nitrogen Tetroxide (N204) Resistant		
	ZZ-M-71	Matting, Rubber and Vinyl All Classes & Styles		
MISC.	A-A-52524	Seal, Plain, And Seal, Plain, Encased: Fluid, Radial, Single And Multiple Lip Sealing Member		
II.S	A-A-59566	Hose, Rubber, and Hose Assemblies, Rubber,		
K		Smooth Bore, Water Suction and Discharge		
	SAE J189	Power Steering Return Hose - Low Pressure		
	SAE J517	Hydraulic Hose - All Types		

TBD - To Be Determined - Shelf life cannot be determined because type of rubber is not specified.

SHELF LIFE CROSS REFERENCE

A.1 SCOPE

A.1.1 Scope. This appendix provides a historical cross reference of all deleted materials (Table V) and specifications (Table VI) deleted from the previous revision of the document. The information contained herein is intended for guidance only.

A.2 APPLICABLE DOCUMENTS - This section is not applicable to this appendix.

A.3 REMOVAL CRITERIA. Deletion was based on procurement history for the most recent 10 year period. If no procurement was found, the specification was deleted from Table II (MIL-HDBK-695D) and moved to Table VI for tracking purposes in this revision. If a material was not found in any of the procured specifications, the material was deleted from Table I (MIL-HDBK-695D) and moved to Table V for tracking purposes in this revision. For any active or inactive document that was removed via MIL-HDBK-695E due to lack of procurement, the preparing activity should be notified and requested to cancel the document.

A.4 DISPOSITION TABLES. Tables V and VI are a list of materials and documents that have been deleted from this revision and is provided for cross reference purposes.

TABLE V. Material cross reference.

Material Description	Common or trade Name	ASTM D1418	Shelf life range MIL-HDBK-695D
Polypropylene oxide	Propylene oxide	GPO	5 to 10 years
Cis-polybutadiene	Butadiene	BR	3 to 5 years
Epichlorohydrin homopolymer	Hydrin 100, Herclor H	СО	5 to 10 years
Epichlorohydrin ethylene oxide	Hydrin 200, Herclor C	ECO	5 to 10 years

TABLE VI. Document cross reference.

	MIL-HDBK-695E		
Identifier	Table	Expected Shelf Life (Yrs)	Status
MIL-G-432	II	3	Deleted
MIL-R-1832	II	3	Deleted
MIL-DTL-2486	II	3	Deleted
MIL-J-2829	II	All types & Classes 3	Deleted
MIL-D-2921	II	All types & Classes 3	Deleted
MIL-DTL-3100	II	5	Deleted
MIL-R-3842	II	3	Deleted
MIL-C-3849	II	-	Deleted
MIL-H-4497	II	3	Deleted
MIL-H-4536	II	3	Deleted
MIL-C-5136	II	5	Deleted
MIL-I-4997	II	NR 3, CR 8	Deleted
MIL-T-5579	II	8	Deleted
MIL-W-5664	II	3	Deleted
MIL-C-6166	II	3	Deleted
MIL-N-6748	II	20	Deleted
MIL-R-6891	II	3	Deleted
MIL-C-7637	II	Types II & II- 5	Deleted
MIL-H-7938	II	4	Deleted
MIL-C-7966	II	3	Deleted
MIL-P-10018	II	3	Deleted
MIL-C-10065	II	3	Deleted
MIL-F-10135	II	3	Deleted
MIL-C-10351	II	3	Deleted
MIL-H-10868	II	5	Deleted
MIL-C-11097	II	5	Deleted
MIL-C-11390	II	5	Deleted
MIL-S-12100	II	3	Deleted
MIL-E-12397	II	3	Deleted
MIL-P-12420	II	3	Deleted
MIL-C-12423	II	5	Deleted
MIL-M-12863	II	3	Deleted
MIL-DTL-13075	II	3	Deleted
MIL-C-13077	II	3	Deleted
MIL-G-13210	II	3	Deleted
MIL-C-13892	II	3	Deleted
MIL-R-14328	II	3	Deleted
MIL-R-14364	II	5	Deleted
MIL-C-14366	II	3	Deleted

TABLE VI. Document cross reference - Continued.

	MIL-HDBK-695I)	MIL-HDBK-695E
Identifier	Table	Expected Shelf Life (Yrs)	Status
MIL-C-14505	II	5	Deleted
MIL-C-14625	II	Type I-3; Type II-5	Deleted
MIL-C-15104	II	3	Deleted
DOD-P-15816	II	10	Deleted
DOD-P-15817	II	3	Deleted
MIL-C-15987	II	8	Deleted
MIL-R-16402	II	3	Deleted
MIL-I-16562	II	3	Deleted
MIL-R-16920	II	3	Deleted
MIL-C-17694	II	5	Deleted
MIL-C-17415	II	Nat-3; Syn-5	Deleted
MIL-D-17650	II	3	Deleted
MIL-W-17965	II	3	Deleted
MIL-E-18648	II	3	Deleted
MIL-B-18799	II	3	Deleted
MIL-M-19018	II	3	Deleted
MIL-P-19152	II	5	Deleted
MIL-C-19635	II	3	Deleted
MIL-H-19639	II	Class 8; Class-3; Class-5	Deleted
MIL-C-19654	II	5	Deleted
MIL-C-19699	II	5	Deleted
MIL-PRF-19759	II	5	Deleted
MIL-PRF-19769	II	3	Deleted
MIL-H-19992	II	3	Deleted
MIL-B-20278	II	3	Deleted
MIL-C-21109	II	3	Deleted
MIL-S-21923	II	3	Deleted
MIL-W-21985	II	3	Deleted
MIL-M-22322	II	3	Deleted
MIL-C-22731	II	3	Deleted
MIL-R-23074	II	8	Deleted
MIL-I-23578	II	3	Deleted
MIL-G-23621	II	3	Deleted
MIL-C-23926	II	5	Deleted
MIL-C-26861	II	3	Deleted
MIL-DTL-26894	II	3	Deleted
MIL-C-27212	II	3	Deleted
MIL-C-27347	II	20	Deleted

TABLE VI. Document cross reference - Continued.

MIL-HDBK-695D			MIL-HDBK-695E	
Identifier	Table	Expected Shelf Life (Yrs)	Status	
MIL-H-27508	II	3	Deleted	
MIL-PRF-28523	II	3	Deleted	
MIL-T-36966	II	3	Deleted	
MIL-C-38149	II	10	Deleted	
MIL-S-40000	II	3	Deleted	
MIL-M-40024	II	3	Deleted	
MIL-S-40043	II	3	Deleted	
MIL-C-43062	II	8	Deleted	
MIL-C-43285	II	10	Deleted	
MIL-C-43303	II	3	Deleted	
MIL-C-43379	II	10	Deleted	
MIL-C-43619	II	3	Deleted	
MIL-C-43656	II	20	Deleted	
MIL-S-43961	II	-	Deleted	
MIL-M-43968	II	3	Deleted	
MIL-W-46759	II	3	Deleted	
MIL-B-50015	II	3	Deleted	
MIL-F-50070	II	3	Deleted	
MIL-H-51059	II	5	Deleted	
MIL-F-51109	II	3	Deleted	
MIL-H-52544	II	3	Deleted	
MIL-DTL-55040	II	5	Deleted	
MIL-C-55479	II	8	Deleted	
MIL-C-55480	II	8	Deleted	
MIL-C-55483	II	8	Deleted	
MIL-T-62118	II	8	Deleted	
MIL-T-62129	II	3	Deleted	
MIL-PRF-62136	II	3	Deleted	
MIL-T-62157	II	3	Deleted	
MIL-H-82142	II	3	Deleted	
MIL-R-82190	II	3	Deleted	
MIL-S-82258	II	3	Deleted	
MIL-T-82270	II	3	Deleted	
MIL-M-82272	II	3	Deleted	
MIL-C-83008	II	3	Deleted	
MIL-C-83398	II	5	Deleted	
J-C-96	IV	5	Deleted	
J-L-231	IV	3	Deleted	
DD-B-599	IV	3	Deleted	
GG-S-727	IV	3	Deleted	
GG-C-846	IV	3	Deleted	
ZZ-B-71	IV	5	Deleted	
ZZ-B-101	IV	3	Deleted	
ZZ-B-117	IV	3	Deleted	
LL-D-11/	1 V	J	Defeteu	

TABLE VI. Document cross reference - Continued.

	MIL-HDBK-695D MIL-HDBK-695E					
Identifier	Table	Expected Shelf Life (Yrs)	Status			
ZZ-C-450	IV	3	Deleted			
ZZ-F-375	IV	Grade A & B - 3	Deleted			
ZZ-H-515	IV	3	Deleted			
ZZ-M-81	IV	3	Deleted			
ZZ-M-85	IV	3	Deleted			
ZZ-P-75	IV	3	Deleted			
ZZ-R-00675	IV	3	Deleted			
ZZ-T-721	IV	10	Deleted			
ZZ-T-751	IV	3	Deleted			
ZZ-C-796	IV	3	Deleted			
ZZ-C-811	IV	3	Deleted			
ZZ-H-130	IV	3	Deleted			
ZZ-H-141	IV	3	Deleted			
ZZ-H-466	IV	3	Deleted			
ZZ-M-001033	IV	3	Deleted			
ZZ-P-46	IV	3	Deleted			
ZZ-P-351	IV	3	Deleted			
ZZ-R-785	IV	3	Deleted			
ZZ-T-441	IV	3	Deleted			
ZZ-R-001207	IV	3	Deleted			
BBB-C-606	IV	3	Deleted			
AMS 3193	V	20	Deleted			
AMS 3194	V	20	Deleted			
AMS 3228	V	15	Deleted			
AMS 3344	V	20	Deleted			
AMS 3386	V	3	Deleted			
AMS 3387	V	3	Deleted			
AMS 3388	V	3	Deleted			
AMS 3389	V	3	Deleted			
AMS 3273	V	5	Deleted			
AMS 3332	V	20	Deleted			
AMS 3650	V	-	Deleted			
AMS 7261	V	20	Deleted			
AMS 7278	V	20	Deleted			
ASTM C443	VI	3	Deleted			
ASTM D178	VI	3	Deleted			
ASTM D296	VI	3	Deleted			
ASTM D353	VI	3	Deleted			
ASTM D469	VI	3	Deleted			
ASTM D532	VI	3	Deleted			
ASTM D574	VI	3	Deleted			
ASTM D752	VI	8	Deleted			
ASTM D753	VI	8	Deleted			

TABLE VI. Document cross reference - Continued.

	MIL-HDBK-695I)	MIL-HDBK-695E
Identifier	Table	Expected Shelf Life (Yrs)	Status
ASTM D754	VI	3	Deleted
ASTM D755	VI	3	Deleted
ASTM D866	VI	3	Deleted
ASTM D1050	VI	3	Deleted
ASTM D1330	VI	3	Deleted
ASTM D1352	VI	10	Deleted
ASTM D1520	VI	3	Deleted
ASTM D1521	VI	3	Deleted
ASTM D1523	VI	3	Deleted
ASTM D1564	VI	3	Deleted
ASTM D1565	VI	3	Deleted
ASTM D1667	VI	3	Deleted
ASTM D1679	VI	3	Deleted
ASTM D1869	VI	3	Deleted
ASTM D1931	VI	20	Deleted
ASTM D2903	VI	5	Deleted
NAS 11	VII	3	Deleted
NAS 244	VII	8	Deleted
NAS 485	VII	8	Deleted
NAS 1570	VII	3	Deleted
NAS 1577	VII	3	Deleted
NAS 1594	VII	20	Deleted
NAS 1595	VII	20	Deleted
NAS 1596	VII	20	Deleted
ARP 610	VIII	3	Deleted
SAE J14	VIII	3	Deleted
SAE J15	VIII	3	Deleted
SAE J17	VIII	3	Deleted
SAE J18	VIII	Type R&S, all classes - 3	Deleted
SAE J19	VIII	3	Deleted
SAE J50	VIII	3	Deleted
SAE J51	VIII	3	Deleted
SAE J60	VIII	3	Deleted
SAE J80	VIII	3	Deleted
SAE J120	VIII	Class 1 & 2 - 5	Deleted
SAE J188	VIII	3	Deleted
SAE J190	VIII	3	Deleted
SAE J557	VIII	3	Deleted
SAE J560	VIII	3	Deleted
SAE J654	VIII	3	Deleted
SAE J1010	VIII	5	Deleted
SAE J1601	VIII	3	Deleted

TABLE VI. Document cross reference - Continued.

	MIL-HDBK-695E		
Identifier	Table	Expected Shelf Life (Yrs)	Status
SAE J1603	VIII	3	Deleted
SAE J1604	VIII	3	Deleted
SAE J1605	VIII	3	Deleted
SAE J1401	VIII	3	Deleted
SAE J2031	VIII	3	Deleted

CONCLUDING MATERIAL

Custodians:

Army - MR

Navy - SA

Air Force – 11

Preparing activity:

Navy - SA

(Project 9320-2011-025)

Review activities:

Army – AR, CR, CR4, MI

Navy – AS, OS, YD

Air Force – 99

DLA – CC, CT, GS, IS

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.