



DE HAVILLAND AIRCRAFT
OF CANADA LIMITED

PPS 13.28

PRODUCTION PROCESS STANDARD

PROPRIETARY INFORMATION

STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS

- Issue 25 - This standard supersedes PPS 13.28, Issue 24.
- Vertical lines in the left hand margin indicate technical changes over the previous issue.
 - Direct PPS related questions to christie.chung@dehavilland.com or (416) 375-7641.
 - This PPS is effective as of the distribution date.

Prepared By: _____ (Christie Chung) _____ April 9, 2020
PPS Group

Approved By: _____ (Stephen Mabee) _____ April 9, 2020
M&P Engineering

The information, technical data and designs disclosed in this document (the "information") are either the exclusive property of De Havilland Aircraft of Canada Limited or are subject to the proprietary rights of others. The information is not to be used for design or manufacture or disclosed to others without the express prior written consent of De Havilland Aircraft of Canada Limited. The holder of this document, by its retention and use, agrees to hold the information in confidence. These restrictions do not apply to persons having proprietary rights in the information, to the extent of those rights.

Signed original on file. Validation of paper prints is the responsibility of the user.

Issue 25 - Summary of Changes (over the previous issue)

The following summaries are not detailed and are intended only to assist in alerting PPS users to changes which may affect them; refer to the applicable sections of this PPS for detailed procedure and requirements.

- Replaced throughout PPS where “Bombardier” is specified with “De Havilland Aircraft of Canada Limited” or “DHC”.
- Added a summary table in Reference section for all testing documents called out in [Table II](#).
- Specified use of BAERD GEN-018 is frozen at revision E.
- Specified to perform receipt and shelf life extension testing of DHMS A6.06 adhesive to the DHMS and not to QAMTR 007.
- Specified shelf life/storage life of DHMS A6.13 components (i.e., unmixed base and catalyst) is 24VS for base (resin) and 36VS for catalyst.



TABLE OF CONTENTS

Sections	Page
1 SCOPE	4
2 HAZARDOUS MATERIALS.....	4
3 REFERENCES	4
4 STORAGE.....	6
4.1 Storage Life	6
4.2 Storage Condition.....	6
4.3 Storage Life Extension Testing.....	6
5 DISPOSAL OF CHEMICAL WASTES.....	7
Figure	
FIGURE 1 - MATERIAL ROOM TEMPERATURE EXPOSURE LOG	8
FIGURE 2 - SHELF LIFE EXTENSION STICKER.....	8
Tables	
TABLE I - APPLICABLE TESTING DOCUMENTS	5
TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)	9



1 SCOPE

- 1.1 This Production Process Standard (PPS) specifies the receipt testing and shelf life/storage life of adhesives, sealants, paints and composite products.
 - 1.1.1 For the purposes of this PPS, the term shelf life and storage life are used interchangeably.
 - 1.1.2 This PPS complements the engineering drawings that specify its use as an authorized instruction. The procedure specified in this PPS shall be followed to ensure compliance with all applicable specifications. In general, if this PPS conflicts with the engineering drawing, follow the engineering drawing. The requirements specified in this PPS are necessary to fulfil the engineering design and reliability objectives.
 - 1.1.3 Refer to [PPS 13.26](#) for the subcontractor provisions applicable to this PPS.

2 HAZARDOUS MATERIALS

- 2.1 Before receipt at De Havilland Aircraft of Canada Limited (DHC), all materials shall be approved and assigned Material Safety Data Sheet (MSDS) numbers by the DHC Environment, Health and Safety Department. Refer to the manufacturer's MSDS for specific safety data on any of the materials specified in this PPS. If the MSDS is not available, contact DHC Environment, Health and Safety Department.

3 REFERENCES

- 3.1 BAERD GEN-018, Rev. E - Engineering Requirements for Laboratories.
- 3.2 EHS-OP-005 - Hazardous Materials Management - *DHC internal operating procedure*.
- 3.3 [PPS 13.26](#) - General Subcontractor Provisions.
- 3.4 QAPI 3.8.8.2 - Non-Conformance Management - *DHC internal Quality procedure*.
- 3.5 See [Table I](#) for applicable testing documents as specified in [Table II](#).



TABLE I - APPLICABLE TESTING DOCUMENTS

DOCUMENT	TITLE
DHMS A6.03	Modified Epoxy, High Strength, Structural Film Adhesive System
DHMS A6.06	Core Splice, Expandable Film Adhesive
DHMS A6.09	High Temperature Epoxy Adhesive/Liquid Shim Material
DHMS C4.22	Decorative Interior Paint System
DHMS P1.38	Aluminized Glass Fabric Unimpregnated and Preimpregnated with Epoxy Resin 250°F and 350°F Cure
DHMS P1.39	Fabric, Aramid Fiber, High Modulus, 350°F Cure Epoxy Resin Impregnated (for Exterior Use)
DHMS P1.40	Fabric, Aramid Fiber, High Modulus, 350°F Cure Epoxy Resin Impregnated (for Interior Use)
DHMS P1.41	Glass Fiber, 350°F Cure, Epoxy Resin Impregnated (for Exterior Application)
DHMS P1.59	Glass-Graphite Fabric, Fire Resistant Phenolic Resin Impregnated for Interior Sandwich and Laminate Panels (1990 Flammability Rule)
EMCM-001	DHC Engineering Materials Control Manual
PPS 25.14	Bonding using DHMS A6.13 Adhesive
QAMTR 001	Testing of DHMS S3.01, A1/2, A2, B1/2 and B2 Polysulphide Sealant
QAMTR 006	Testing of Foam in Place Materials
QAMTR 007	Testing of Adhesives
QAMTR 012	Testing of Surface Finishing Compounds
QAMTR 014	Testing of Devcon "F" and "A" Epoxy Filler
QAMTR 017	Miscellaneous Adhesives, Sealants and Potting Compounds
QAMTR 018	Testing Paints and Adhesives
QAMTR 023	Testing of PR1435 and S3.06 Sealants
QAMTR 027	Colour and Texture Matching Decorative Materials
QAMTR 028	Testing of DHMS P1.30 Epoxy Resin Honeycomb Core Filler
QAMTR 030	Receipt Testing of Pre Impregnated, Woven Glass Fabric, Honeycomb/Balsa Core, Foam Materials and Thermocouples
QAMTR 035	Testing of DSC 472 Underbelly Protective Tape



4 STORAGE

4.1 Storage Life

- 4.1.1 Storage life is the period of time in months, which defines how long a component may be held in inventory before it becomes unusable without further testing (i.e., Storage Life Extension Testing). Time limitations shall be as specified in [Table II](#).
- 4.1.2 Always use the oldest stock first (i.e., first in/first out (FIFO) basis).
- 4.1.3 Issue shelf-life items on a first in/first out (FIFO) basis.
- 4.1.4 Review paint and primers every six months or more often if conditions warrant. Dispose of obsolete or deteriorated products as necessary according to [section 5](#).
- 4.1.4.1 In general, thinners and reducers do not have a limited shelf life. If necessary, dispose of unwanted thinners and reducers according to [section 5](#).

4.2 Storage Condition

- 4.2.1 Store materials in the original packaging or containers in a compatible environment as specified in the applicable PPS or supplier/manufacturer's technical data sheet.
 - 4.2.1.1 If the storage condition specified in a PPS conflicts with the supplier/manufacturer's technical data sheet, follow the supplier/manufacturer's technical data sheet.
- 4.2.2 Ensure that two-part materials (base and catalyst) have matched batch numbers on receipt and issue when supplier's batch numbers are noted on the containers, except where the catalyst is noted as not batch oriented.
 - 4.2.2.1 Two-part materials which are not batch oriented means the catalyst or base material may be supplied separately provided that suppliers' products are not intermixed.
- 4.2.3 Do not reject paints, sealants, and adhesives that are in stock two weeks before the expiry date. However, perform storage life extension testing according to [section 4.3](#). Dispose of the material subject to the results of laboratory testing according to [section 5](#).
- 4.2.4 For expired materials, where storage life extension is permissible, perform storage life extension testing according to [section 4.3](#).

4.3 Storage Life Extension Testing

- 4.3.1 For expired material or material nearing expiry, perform storage life extension (see [Table II](#) for the applicable testing documentation (e.g., PPS, QAMTR, DHMS or EMCM-001)). Quarantine expired material until laboratory report indicates a shelf life extension has been approved. Submit for testing a minimum of one container of the item from Stores stock to a DHC approved laboratory for testing.



- 4.3.1.1 All testing and evaluation specified herein shall only be performed by DHC Materials Laboratory or by laboratories accredited according to BAERD GEN-018 Rev. E.
- 4.3.1.2 If the QAMTR conflicts with EMCM-001 or the material specification (i.e., DHMS or BAMS), the EMCM-001 or material specification shall take precedence. Where the material specification conflicts with a PPS, the PPS shall take precedence.
- 4.3.1.3 Where the EMCM-001 conflicts with the material specification, the material specification shall take precedence.
- 4.3.2 For material which has received an extension of the storage life, complete and attach a new Material Room Temperature Exposure Log card (see [Figure 1](#) for an example of what data should be recorded) to the material. Remove the previous card and maintain on file.
- 4.3.3 Include as a minimum the following data with the *Laboratory Request*:
 - Material supplier
 - Material Receipt Voucher (MRV) numbers or manufacturer's Certificate of Conformance (C. of C.) order number.
 - Applicable QAMTR or material specification (i.e., DHMS or BAMS) number
- 4.3.3.1 Carry out testing according to the specified QAMTR, material specification or EMCM-001, as applicable.
- 4.3.3.2 If the test result is unsatisfactory, reject the material. At DHC, action material according to QAPI 3.8.8.2. When the laboratory report indicates a shelf life extension has been approved, affix a Shelf Life Extension sticker (see [Figure 2](#) for an example of what data should be recorded) to each applicable product held in the expired material Quarantined area (i.e., from the same batch and MRV number). Materials and Processes (M&P) Engineering shall specify whether shelf life shall be extended and by how much unless otherwise specified in a QAMTR, EMCM-001, DHMS or PPS, as applicable.
- 4.3.4 Storage life extension has **no effect** on the working life of the material. Refer to the relevant PPS or supplier/manufacturer's technical data sheet for the product's working life, as applicable.

5 DISPOSAL OF CHEMICAL WASTES

- 5.1 Dispose of all chemical wastes according to national legislation and local regulations. At DHC, dispose of chemical wastes according to EHS-OP-005.
- 5.2 At DHC, dispose of chemical contaminated work clothes, rags, etc., into Red Containers labelled "Waste Rags".



MATERIAL ROOM TEMPERATURE EXPOSURE LOG						
MAT'L		DHMS		TYPE		
DESCRIPTION						
MRV/C. OF C. #		BATCH #		ROLL #		
DATE MFG'D			RECEIPT DATE			
LAB REPORT			TIME EXPIRED DATE			
DATE	ROOM TEMP (°F)	TIME OUT	TIME IN	ELAPSED TIME	ACCUMULATED TIME	INSP

FIGURE 1 - MATERIAL ROOM TEMPERATURE EXPOSURE LOG

SHELF LIFE EXTENSION
MRV/C. of C. #:
Lab Rpt. #:
Ext. Date:
Insp. Stamp:

FIGURE 2 - SHELF LIFE EXTENSION STICKER



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
3M 86A	ADHESION PROMOTER	16.28	EMCM-001	3M	AA	12VS
A-A-3164 "F2"	LACQUER, CELLULOSE-NITRATE FLAT PIGMENTED	34.01	EMCM-001	PER A-A-3164	BB	60VS
A-A-3165 "F2"	LACQUER, CELLULOSE-NITRATE GLOSS PIGMENTED	34.01	EMCM-001	PER A-A-3165	BB	60VS
A-A-3165 "F4"	LACQUER, CELLULOSE-NITRATE, CLEAR	34.01	EMCM-001	PER A-A-3165	BB	60VS
AKEMI AP2108	EPOXY LAMINATING/ADHESIVE RESIN - CLEAR	10.30	QAMTR 017R	AKEMI	AA	12VS
AQUABIND AQB-001	ADHESIVE, WATER BASED	25.33	QAMTR 017	AKZO NOBEL	AA	6VM
AS-P108	POLYURETHANE ANTI-STATIC EROSION RESISTANT COATING	34.18	—	CAPP CO. INC.	CC	12VS
AWL-QUICK D8003 (BASE)	SANDING PRIMER	34.11	EMCM-001	U.S. PAINT CORP.	CC	12VS
AWL-QUICK D9001 (CATALYST)	L/F YELLOW CONVERTER FOR D8003	34.11	EMCM-001	U.S. PAINT CORP.	CC	12VS
B274	POLYURETHANE EROSION RESISTANT COATING	34.18	—	CAPP CO. INC.	CC	12 VS
BAMS 552-008	SEALANT	21.06 21.16 21.19 21.20 21.21 21.22	EMCM-001R	PER EMCM-001	BB	NOTE 4
BAMS 552-009	SEALANT	21.20	EMCM-001R	PER EMCM-001	BB	NOTE 4
BASF ELASTOFOAM I 1178-WUC 3122T	SEMI-RIGID FOAM, POLYURETHANE	10.10	QAMTR 006	BASF CANADA INC.	BB	6VS
BASF FOAM EX-S-3120/17 ISO	SEMI-RIGID FOAM, POLYURETHANE	10.10	QAMTR 006	BASF CANADA INC.	BB	6VS
BMS 10-20 TYPE II "F21"	FUEL TANK PRIMER, EPOXY	21.03	QAMTR 018R	PER BMS QPL	BB	NOTE 4
BMS 10-21G TYPE III "F41"	EPOXY ANTI-STATIC COATING	34.19	QAMTR 018R	PER BMS QPL	BB	12VM
BMS 10-83 TYPE I "F14" (DHMS C4.22 TYPE I)	INTERIOR DECORATIVE PRIMER	34.07	EMCM-001R	PER BMS QPL	BB	NOTE 4
BMS 10-83 TYPE II "F42" (DHMS C4.22 TYPE VI)	INTERIOR DECORATIVE URETHANE ENAMEL	34.20	EMCM-001R	PER BMS OR DHMS QPL	BB	
BMS 10-83 TYPE III "F42" (DHMS C4.22 TYPE VII)	INTERIOR DECORATIVE URETHANE ENAMEL	34.20	EMCM-001R	PER BMS OR DHMS QPL	BB	
BOSCODUR #22	ADHESIVE, HARDENER	25.31	QAMTR 017R	BOSTIK	AA	6VM
BOSCODUR #24T	ADHESIVE, HARDENER	25.31	QAMTR 017R	BOSTIK	AA	6VM
BOSTIK 1142	ADHESIVE	25.12	EMCM-001	BOSTIK	AA	6VM
BOSTIK 7132	ADHESIVE, BASE	25.31	QAMTR 017R	BOSTIK	AA	6VM
CHEM SEAL CS7707	NYLON COATING, CLEAR TWO PART	16.18	—	FLAMEMASTER CORP.	CC	NOTE 4

**TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)**

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
DESOTHANE HS CA8800/B900 (DHMS C4.04)	ENAMEL, CLEAR POLYURETHANE	16.18 34.03	—	PPG AEROSPACE, PRC-DESOTO	BB	NOTE 4
DEVCON "A"	PLASTIC STEEL KIT	10.32	QAMTR 014	DEVCON CORP.	AA	36VS
DEVCON "F"	ALUMINUM PUTTY KIT	10.32	QAMTR 014	DEVCON CORP.	AA	36VS
DHMS A6.03	EPOXY ADHESIVE	10.25 10.35	QAMTR 007R	PER DHMS QPL	BB	6VM
		36.07	DHMS A6.03R			
DHMS A6.06	EPOXY ADHESIVE, EXPANDABLE	10.24 10.25 10.35 10.43 10.48 36.07	DHMS A6.06R	PER DHMS QPL	BB	6VR
DHMS A6.08	EPOXY ADHESIVE FILM	10.25 10.35 10.43 10.48	EMCM-001R	PER DHMS QPL	BB	6VR
DHMS A6.09	EPOXY ADHESIVE/LIQUID SHIM, TWO PART	25.30	DHMS A6.09R	PER DHMS QPL	BB	PER PPS 25.30
DHMS A6.09-1	EPOXY ADHESIVE/LIQUID SHIM, TWO PART, PRE-CATALYZED FROZEN SHEET					
DHMS A6.09-2	EPOXY ADHESIVE/LIQUID SHIM, TWO PART, PRE-CATALYZED FROZEN CARTRIDGE FORM					
DHMS A6.09-3	EPOXY ADHESIVE/LIQUID SHIM, TWO PART, HIGH TEMPERATURE PERFORMANCE					
DHMS A6.10 TYPE I	ADHESIVE, NITRILE BASED	25.57	QAMTR 007R/ QAMTR 017R	PER DHMS QPL	AA	12VS
DHMS A6.10 TYPE II	ADHESIVE, NITRILE BASED	25.08	EMCM-001R	PER DHMS QPL	AA	9VS
DHMS A6.11 TYPE I CL1	ROOM TEMP. CURING ADHESIVE POLYCHLOROPRENE RUBBER BASED	25.23	EMCM-001R	PER DHMS QPL	AA	15VM
DHMS A6.11 TYPE I CL2	ROOM TEMP. CURING ADHESIVE POLYCHLOROPRENE RUBBER BASED	25.63	EMCM-001R	PER DHMS QPL	AA	15VM
DHMS A6.11 TYPE II CL1 (EC1357N)	ROOM TEMP. CURING ADHESIVE POLYCHLOROPRENE RUBBER BASED	25.55	EMCM-001R	PER DHMS QPL	AA	15VM
DHMS A6.12 TYPE I	EPOXY ADHESIVE, TWO PART (UNMIXED)	25.52 36.09	EMCM-001R	PER DHMS QPL	BB	24VS
DHMS A6.13	SILICONE ADHESIVE, BASE (RESIN)	25.14	PPS 25.14R	PER DHMS QPL	BB	24VS
	SILICONE ADHESIVE, CATALYST					36VS
DHMS A6.15	ADHESIVE/SEALANT, ONE PART, FLUOROSILICONE	25.25	EMCM-001R	PER DHMS QPL	AA	18VM



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
DHMS C4.01 "F19"	PRIMER, FLUID RESISTANT, EPOXY, TWO PART	34.08	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS C4.04 "F24" "F37"	ENAMEL, POLYURETHANE, TWO PART	16.18 34.03	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.05 "F20"	ENAMEL, POLYURETHANE, TWO PART	16.08	QAMTR 018R	PER DHMS QPL	BB	
DHMS C4.06 TYPE I "F21"	FUEL TANK PRIMER, POLYURETHANE	21.03	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS C4.07 "F5"	ENAMEL, BAKING	34.39	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.08 "F29"	ENAMEL, TEFLON FILLED POLYURETHANE	34.13	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.11 "F22"	ENAMEL, EPOXY POLYAMIDE	34.41	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.13 "F31" & "F34"	ENAMEL, POLYURETHANE ANTI-STATIC COATING	34.15	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.18 "F23"	PRIMER, EPOXY AMINE URETHANE COMPATIBLE	34.16	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.20 "F35"	EPOXY RESIN COATING	16.11	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.21 "F45"	PRIMER, FLUID RESISTANT, HIGH TEMP EPOXY	34.08	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.22 TYPE I "F14" (BMS 10-83 TYPE I)	INTERIOR DECORATIVE PRIMER	34.07	EMCM-001R	PER DHMS QPL	BB	
DHMS C4.22 TYPE VI "F42" (BMS 10-83 TYPE II)	INTERIOR DECORATIVE URETHANE ENAMEL	34.20	EMCM-001R	PER BMS OR DHMS QPL	BB	
DHMS C4.22 TYPE VII "F42" (BMS 10-83 TYPE III)	INTERIOR DECORATIVE URETHANE ENAMEL	34.20	EMCM-001R	PER BMS OR DHMS QPL	BB	
DHMS C4.22 TYPE IX "F14"	INTERIOR DECORATIVE PRIMER	34.07	DHMS C4.22R	PER DHMS QPL	BB	
DHMS C4.30 "F47"	EPOXY PRIMER/POLYURETHANE BASE COAT/POLYURETHANE CLEAR COAT	34.25	—	PER DHMS QPL	BB	
DHMS P1.22	GLASS FIBRE/EPOXY RESIN	10.23 10.35	EMCM-001R	PER DHMS QPL	BB	6VR
DHMS P1.24	ARAMID FIBRE/EPOXY RESIN	10.23 10.35	EMCM-001R	PER DHMS QPL	BB	6VR
DHMS P1.28 CL 2	LAMINATE, PLASTIC INTERIOR, DECORATIVE	10.46	QAMTR 027R	PER DHMS QPL	BB	12VM
DHMS P1.28 CL 2A	LAMINATE, PLASTIC INTERIOR, DECORATIVE	10.46	QAMTR 027R	PER DHMS QPL	BB	12VM
DHMS P1.30 GRADE 1	EPOXY RESIN	13.23	EMCM-001R	PER DHMS QPL	BB	6VR
DHMS P1.30 GRADE 2	EPOXY RESIN	13.23	EMCM-001R	PER DHMS QPL	BB	12VR
DHMS P1.30 GRADE 2A	EPOXY RESIN	13.23	QAMTR 028R	PER DHMS QPL	BB	12VR
DHMS P1.30 GRADE 3	EPOXY RESIN	13.23	EMCM-001R	PER DHMS QPL	BB	12VR
DHMS P1.30 GRADE 5	EPOXY RESIN	13.23	EMCM-001R	PER DHMS QPL	BB	6VR
DHMS P1.35	GRAPHITE FIBER/EPOXY RESIN	10.23 10.35	EMCM-001R	PER DHMS QPL	BB	9VM

**TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)**

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
DHMS P1.38 TYPE 2	ALUMINIZED GLASS FIBRE/EPOXY RESIN, 250°F CURE	10.23 10.35	DHMS P1.38R	PER DHMS QPL	BB	6VR
DHMS P1.38 TYPE 3	ALUMINIZED GLASS FIBRE/EPOXY RESIN, 350°F CURE	10.23 10.43	DHMS P1.38R	PER DHMS QPL	BB	6VR
DHMS P1.39	ARAMID FIBRE/EPOXY RESIN	10.23 10.43	DHMS P1.39R	PER DHMS QPL	BB	6VM
DHMS P1.40	ARAMID FIBRE/EPOXY RESIN	10.23 10.43	DHMS P1.40R	PER DHMS QPL	BB	6VM
DHMS P1.41	GLASS FIBRE/EPOXY RESIN	10.23 10.43	DHMS P1.41R	PER DHMS QPL	BB	6VR
DHMS P1.44	GLASS-GRAPHITE FIBRE/ PHENOLIC RESIN	10.23 10.48	QAMTR 030R	PER DHMS QPL	BB	12VM
DHMS P1.48	FLYSCREEN, GLASS-FIBRE/EPOXY RESIN	10.23 10.24	EMCM-001R	PER DHMS QPL	BB	6VM
DHMS P1.49 CL 1	EPOXY RESIN, LOW PRESSURE LAMINATING	10.15 10.40	EMCM-001R	PER DHMS QPL	BB	12VS
DHMS P1.49 CL 2 & CL 3, EA 9396	EPOXY RESIN, LOW PRESSURE LAMINATING	10.15 10.40	EMCM-001R	PER DHMS QPL	BB	12VS
DHMS P1.49 CL 3, EA 9390	EPOXY RESIN, LOW PRESSURE LAMINATING	10.15 10.40	EMCM-001R	PER DHMS QPL	BB	6VS
DHMS P1.59	GLASS-GRAPHITE FIBRE/PHENOLIC RESIN	10.23 10.48	DHMS P1.59R	PER DHMS QPL	BB	9VM
DHMS P1.64	EXPANDED ALUMINUM FOIL, PRE-IMPREGNATED	10.23 10.35 10.43	EMCM-001R	PER DHMS QPL	BB	9VM
DHMS S3.01 TYPE I AND TYPE II	SEALING COMPOUND, INTEGRAL FUEL TANK	21.03 21.06 21.15 21.20 21.21	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.02 CLASS A AND CLASS B	SEALING COMPOUND, LOW ADHESION	21.20	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.04	SEALING COMPOUND, FLAME RESISTANT	21.18 21.20	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.05 CLASS B	SEALING COMPOUND, POLYSULPHIDE	21.20	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.06 TYPE I	CORROSION INHIBITING SEALANT	21.20 21.21	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.07 CLASS B AND CLASS C	SEALANT, INTEGRAL FUEL TANKS	21.20	EMCM-001R	PER DHMS QPL	BB	NOTE 4
DHMS S3.08	SEALANT, FAST CURING, INTEGRAL FUEL TANKS	21.20	—	PER DHMS QPL	BB	NOTE 4
DOW CORNING MOLYKOTE D-321R "C7"	DRY FILM LUBRICANT, AIR DRY, FLUID RESISTANT	32.09	EMCM-001	DOW CORNING	AA	24 VM
DOW CORNING 340	HEAT SINK COMPOUND	9.12	—	DOW CORNING	BB	12VS
DP420	ADHESIVE, EPOXY, TWO PART	16.28	QAMTR 007R	3M	BB	15VS



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
DSC 206-1	PART A, MICRO-ULTRA 15-3 RESIN/FILLER	34.34	QAMTR 012R	PER DSC DRAWING	AA	6VM
	PART B, MICRO-ULTRA 15-3 BPO WHITE CREAM HARDENER					12VM
DSC 206-2	EPIBOND 156 A/B	34.34	QAMTR 012R	PER DSC DRAWING	AA	12VM
	MAGNA OFF WHITE SURFACER 8-W-5/X500					
	MAGNA STATIC CONDITIONER FILLER 28-C-1/X500					
	PART A, MICRO-ULTRA 15-3 RESIN/FILLER					6VM
	PART B, MICRO-ULTRA 15-3 BPO WHITE CREAM HARDENER					12VM
	APF 7					12VM
	469-9CA-41B EPOXY POLYAMINE PUTTY FILLER					
DSC 206-3	PART A, MICRO-ULTRA 15-3 RESIN/FILLER	34.34	QAMTR 012R	PER DSC DRAWING	AA	6VM
	PART B, MICRO-ULTRA 15-3 BPO WHITE CREAM HARDENER					12VM
DSC 206-4	REDUCER RESIN 15-3	34.34	QAMTR 012	PER DSC DRAWING	AA	6VM
DSC 216-1	FLUOROCARBON DISPERSION COATING (TEFLON)	16.24 36.09	—	PER DSC DRAWING	AA	24VM
DSC 233-1	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	15VS
DSC 233-2	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	12VS
DSC 233-3	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	12VS
DSC 233-4	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	12VS
DSC 233-5	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	6VS
DSC 233-6	ADHESIVE/SEALANT, SILICONE ONE PART RTV	25.50	QAMTR 017R	PER DSC DRAWING	AA	6VS
DSC 233-7	SILICONE SEALANT, PAINTABLE ONE PART	25.50	QAMTR 017R	PER DSC DRAWING	AA	12VS
DSC 234-17	VACUUM BAG SEALANT	10.40	—	PER DSC DRAWING	AA	12VM
DSC 234-1	2 MIL NYLON VACUUM BAGGING FILM, 250°F CURE	10.40	—	PER DSC DRAWING	AA	12VS
DSC 234-3	2 MIL NYLON TUBULAR VACUUM BAGGING FILM, 250°F CURE	10.40	—	PER DSC DRAWING	AA	12VS
DSC 234-5	PERFORATED RELEASE FILM	10.40	—	PER DSC DRAWING	AA	24VM
DSC 234-7	NON-POROUS RELEASE FABRIC	10.40	—	PER DSC DRAWING	AA	24VM



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

[illegible]



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
F-900	TAMPER PROOF SEALANT, PUTTY	6.XX 9.22 14.XX 19.01	—	ORGANIC PRODUCTS CO.	AA	NOTE 4
F-925	TAMPER PROOF SEALANT, PUTTY	6.XX 9.22 14.XX 19.01	—	ORGANIC PRODUCTS CO.	AA	
FAST-WELD #10 KIT	EPOXY ADHESIVE KIT	25.62	—	CIBA GEIGY	AA	12VS
GYFTANE FR-2100	RIGID FOAM, POLYURETHANE	10.10	—	PLASTIQUES GyF ITEE	BB	6VS
HUMISEAL 1A33	ENCAPSULATING COATING	9.12	—	CHASE SPECIALTY COATINGS	AA	NOTE 4
HYSOL 3426 HARDENER	EPOXY RESIN	36.07	—	DEXTER/HYSOL	BB	NOTE 4
HYSOL 3520 HARDENER	EPOXY RESIN	36.07	—	DEXTER/HYSOL	BB	NOTE 4
HYSOL 4326	EPOXY ADHESIVE, TWO PART	25.16	QAMTR 007R	DEXTER/HYSOL	BB	12VM
HYSOL 4351 RESIN	EPOXY RESIN	36.07	—	DEXTER/HYSOL	AA	NOTE 4
HYSOL PC28	ENCAPSULATING COATING	9.12	—	DEXTER/HYSOL	AA	12VS
ISOFOAM PE-2	RIGID FOAM, POLYURETHANE, TWO PART	10.10	QAMTR 006	ISOCYANATE PRODUCTS INC.	BB	6VS
KAL-GARD KG 200 "C3"	DRY FILM LUBRICANT, OVEN CURE, HIGH TEMP	32.09	—	EVERLUBE PRODUCTS	AA	NOTE 4
LOCTITE 243	ANAEROBIC SEALANT/ADHESIVE	19.02	—	HENKEL CORP.	BB	12VS
LOCTITE 638	SEALANT	19.02	—	HENKEL CORP.	BB	12VS
LOCTITE SF 7088 (LOCTITE 7088)	PRIMER/ACTIVATOR	19.02	—	HENKEL CORP.	BB	12VS
LOCTITE 7471 'PRIMER T'	PRIMER/ACTIVATOR	19.02	—	HENKEL CORP.	BB	12VS
LOCTITE SUPERBONDER 430	ADHESIVE, CYANOACRYLIC	25.56	QAMTR 017R	HENKEL CORP.	AA	12VS
MAPAERO FR4-45 (DHMS C4.22 TYPE IX "F14")	INTERIOR DECORATIVE PRIMER	34.07	DHMS C4.22R	PER DHMS QPL	BB	NOTE 4
MIL-C-83231 "F36 & F40"	COATING, POLY., EROSION RESISTANT & ANTI-STATIC	34.18	QAMTR 018	PER MIL QPL	BB	12VS
MIL-C-9084	GLASS FABRIC - STYLE 181, 181-50, 181-77, 1581 OR 7781	10.40	—	PER MIL QPL	BB	NOTE 4
MIL-PRF-85285	ENAMEL, POLYURETHANE, TWO PART	34.03	EMCM-001	PER MIL QPL	AA	
MIL-S-22473 GR. AA OR ASTM D5363 AN0111 (E.G., LOCTITE GR. AA)	SEALANT	19.02	EMCM-001R	PER MIL OR ASTM QPL	BB	12VS
MIL-S-22473 GR. N OR ASTM D5363 GR. N (E.G., LOCTITE 7649 'PRIMER N')	PRIMER/ACTIVATOR	19.02	EMCM-001R	PER MIL OR ASTM QPL	BB	12VS

**TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)**

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
MIL-S-22473 GR. T OR ASTM D5363 GR. T (E.G., LOCTITE 7471 'PRIMER T')	PRIMER/ACTIVATOR	19.02	EMCM-001R	PER MIL OR ASTM QPL	BB	12VS
MIL-L-23398 "C8"	DRY FILM LUBRICANT, AIR DRY, CORROSION RESISTANT	32.09	EMCM-001	PER MIL QPL	AA	NOTE 4
MIL-R-46082 TYPE III OR ASTM D5363 AN0421 (E.G., LOCTITE 635)	SEALANT	19.02	EMCM-001R	PER MIL OR ASTM QPL	BB	12VS
MIL-S-46163 GR. M (E.G., LOCTITE 222MS) OR ASTM D5363 AN0311	SEALANT	19.02	EMCM-001R	PER MIL OR ASTM QPL	BB	12VS
MOLYKOTE 106 "C3"	DRY FILM LUBRICANT, OVEN CURE, HIGH TEMP	32.09	—	DOW CORNING	AA	NOTE 4
MOLYKOTE 3402 "C8"	DRY FILM LUBRICANT, AIR DRY, CORROSION RESISTANT	32.09	—	DOW CORNING	AA	
TITSEAL #2	ANTI-SEIZE COMPOUND	6.03	QAMTR 017R	RADIATOR SPECIALITY	AA	60VS
TITSEAL #3	ANTI-SEIZE COMPOUND	6.03	QAMTR 017R	RADIATOR SPECIALITY	AA	60VS
OCEAN NO.1522 "F38"	INTUMESCENT PAINT	16.12	QAMTR 018	OCEAN CHEMICALS INC.	BB	6VM
PERMA-SLIK GLF "C8" (READY TO APPLY FORM) TO SAE AS1701 CLASS II	DRY FILM LUBRICANT, AIR DRY, CORROSION RESISTANT	32.09	—	EVERLUBE PRDUCTS	AA	NOTE 4
PR 1005-L	SEALANT PROTECTIVE COATING	25.56	QAMTR 017R	PRODUCTS RESEARCH	AA	12VS
PR 1435	POLYSULFIDE SEALANT KIT - 6 OZ	21.20	QAMTR 023R	PRODUCTS RESEARCH	BB	NOTE 4
PR 1440 CLASS A TO AMS-S-8802 TYPE II CLASS A	SEALANT	21.03 21.16 21.19 21.20 21.21	EMCM-001R (NOTE 5)	PRC-DESOTO INTERNATIONAL	BB	NOTE 4
RAYCHEM C-WRAP	SIDE ENTRY INSULATION REPAIR SLEEVE ASSEMBLY	9.47	—	TE CONNECTIVITY (RAYCHEM)	BB	60VM
S1009 KIT	POLYOLEFIN ADHESIVE (2 PART EPOXY)	9.17	EMCM-001	TE CONNECTIVITY (RAYCHEM)	AA	24VS
S1017	POLYOLEFIN HOT MELT ADHESIVE TAPE	9.17	—		AA	48VS
S1030						
S1048						
S1125 KIT	ELASTOMERIC ADHESIVE (2 PART EPOXY)	9.17	—	TE CONNECTIVITY (RAYCHEM)	AA	18VS
SANDSTROM 26A "C8"	DRY FILM LUBRICANT, AIR DRY, CORROSION RESISTANT	32.09	—	SANDSTROM PRODUCTS COMPANY	AA	NOTE 4
SCOTCH-WELD 3532	URETHANE ADHESIVE, TWO PART	25.69	QAMTR 007R	3M	BB	12VS
SCOTCH-WELD 3549	URETHANE ADHESIVE, TWO PART	25.69	QAMTR 007R	3M	BB	12VS
SCOTCH-WELD DP805 (DUO-PAK CARTRIDGES)	ACRYLIC ADHESIVE, TWO PART	25.70	—	3M	BB	12VS



TABLE II - STORAGE LIFE OF ADHESIVES, SEALANTS, PAINTS AND COMPOSITE PRODUCTS (ALL LIVES ARE IN MONTHS)

PART NUMBER	DESCRIPTION	PPS NO.	TESTING DOCUMENT (NOTE 2)	MANUFACTURER	CODE (NOTE 1)	LIFE (NOTE 3)
SOLVENT TYPE II CEMENT	CEMENT, ACRYLIC PLASTIC	25.54	—	CRYSTAL GLASS CO.	AA	NOTE 4
STEPANFOAM SX-195	SEMI-RIGID FOAM, POLYURETHANE	10.10	QAMTR 006	STEPHAN CHEMICAL CO.	BB	12VS
TEMPO 1900 (F32")	CLEAR EPOXY SEALANT, TWO PART	21.05	QAMTR 017R	TEMPO PAINT & VARNISH CO.	AA	NOTE 4
TEMPO 7600 (BAMS 565-002 CL A GRADE A)	ENAMEL, CLEAR POLYURETHANE	16.18	—	TEMPO PAINT & VARNISH CO.	BB	
TT-P-1757 TYPE I "F1"	PRIMER, ALKYD, ZINC CHROMATE	34.02	EMCM-001	PER TT-P-1757	BB	
WS-8020RC A2 TO AMS-S-8802 CLASS A	SEALANT	21.20	EMCM-001	ROYAL ADHESIVES & SEALANTS LLC	BB	
VIBRIN 117	POLYESTER RESIN	10.04	—	AOC	AA	
VIBRIN 563	POLYESTER RESIN	10.04	—	AOC	AA	
VULTAFOAM 16-F-1402	RIGID FOAM, POLYURETHANE	10.10	QAMTR 006	GENERAL LATEX	BB	3VS
VULTAFOAM 16-F-1904	RIGID FOAM, POLYURETHANE	10.10	QAMTR 006	GENERAL LATEX	BB	3VS
VULTAFOAM XR-1116-S	RIGID FOAM, POLYURETHANE	10.10	—	GENERAL LATEX	BB	3VS
XIM FLASH BOND #300 ("F17")	PRIMER, POLYESTER, ONE PART	34.06	QAMTR 018	XIM PRODUCTS CANADA LTD.	BB	NOTE 4

- Note 1. Code AA - Sealants, adhesives and potting compound termed as "self rejecting", may be used by production until obviously deteriorated. Stores quantities are to be rejected for test or examination, when storage life is expired.
Code BB - Sealants, adhesives, foams and primers that require testing at the end of their noted storage life, whether in use or not.
Code CC - Covering paints and finishes that are termed "self rejecting" under all circumstances.
- Note 2. For expired material or material nearing expiry, perform storage life extension according to the specified document. Items shown suffixed by an "R" shall be tested by a DHC approved laboratory (see [paragraph 4.3.1.1](#)) upon receipt at the receiving facility to the referenced QAMTR, DHMS, BAMS, EMCM-001 or supplier/manufacturer's technical data sheet. Receipt test items according to the EMCM-001, QAMTR, DHMS, or BAMS number specified, as applicable.
- Note 3. Shelf Life Code:
VM - Date of Manufacture
VR - Date of Receipt at the receiving facility (e.g., DHC)
VS - Date of Shipment from manufacturer
First numerical character(s) is the shelf life in months. The last two alpha characters is the shelf life code.
- Note 4. The storage life shall be as specified on the Certification of Compliance and/or the manufacturer's technical data sheet.
- Note 5. Testing of PR 1440 Class A sealant shall be to the same requirements as DHMS S3.01 Class A sealant specified in QAMTR 001.