



REVISIONS (Δ DENOTES CHANGE)

REV.	DATE (YYYY/MM/DD)	RCN NO	DESCRIPTION OF CHANGE	UPDATED BY
-	1987/10/27	RLSD	INITIAL RELEASE	D. MILLER
A	1992/05/14	2824	Revise to a more generic polymeric material specification to include other polymeric materials (ie. getter)	D. MILLER
B	1992/12/08	3185	Update to MIL-H-38534 Rev B	D. MILLER
C	1996/07/10	5227	MIL-H-38534 updated to MIL-PRF-38534	D. MILLER
D	2004/07/11	11715	Update/clarification IAW ISO 9000-2000, AS9100	J. VANDEUSEN
E	2010/01/21	16865	Add 3.1.3 flow down to subtier	J. VANDEUSEN
F	2014/01/03	20757	Add 3.1.10 Requirements for record retention	J. VANDEUSEN
G	2015/02/27	176066	Tie in Anaren Doc. #81000, general clarification, remove redundant information now located in 81000.	J. VANDEUSEN
H	2017/02/27	193676	Add TM5011 allowance for Condition C	J. VANDEUSEN
J	2021/01/21	309973	Update procurement specification formats, remove MIL-STD-981, Clarify EE data IAW MIL-PRF-38534 Rev L release.	J. VANDEUSEN

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES -TOLERANCES-		FRACTIONS DECIMALS ANGLES			CERTIFICATION/ACCEPTANCE PROCUREMENT FOR POLYMERIC MATERIALS	
DRAWN BY	DATE (YYYY/MM/DD)	THIRD ANGLE PROJECTION 				
D. MILLER	1987/10/27		A	31597	1021-1629	
DESIGNER N/A			SCALE	DOC CODE	REV	SHEET
ENGINEER DAN MALARIK		N/A	N/A	J	1 OF 3	
APPROVAL SIGNATURES ON FILE						
DOC TYPE N/A						

1.0 PURPOSE:

The purpose of this document is to define the supplier requirements of all procured polymeric materials used in hybrids/MCM's. This document is used in conjunction with Document #81000.

2.0 APPLICATION:

This procedure shall apply to all polymeric materials as follows:

2.1 **Condition "A"** - polymeric material intended to be used in full compliance with MIL-PRF-38534 and shall pass the certification tests of MIL-STD-883 Method 5011.

2.2 **Condition "B"** - polymeric material intended to be used in full compliance with MIL-PRF-38534 and shall pass the acceptance tests of MIL-STD-883 Method 5011.

2.3 **Condition "C"** - polymeric material to be used on devices which do not impose MIL-PRF-38534 or MIL-STD-883 Method 5011 requirements.

Note: Some vendors may supply TM5011 material but do not supply the acceptance data with shipment. Data is available upon request.

2.4 **Condition "D"** - polymeric material intended to be used in full compliance with MIL-PRF-38534 where TTM is responsible for the certification and/or acceptance tests of MIL-STD-883 Method 5011.

2.5 Definitions:

2.5.1 Type I - electrically conductive.

2.5.2 Type II - electrically non-conductive or insulative.

3.0 REQUIREMENTS:

3.1 General:

3.1.1 The supplier shall verify that Condition "A" and "B" polymeric materials are certified to and comply with MIL-STD-883 Method 5011 and all test methods referenced therein.

3.1.2 The polymeric materials shall be packaged in such a way that the product is isolated from vibration or mechanical shock that may cause degradation or damage. The package in which the product is shipped shall have an internal environment that is similar to that which it is stored in (i.e. material to be stored at -40°C may be packed in dry ice).

3.1.3 Expiration date of the material shall be clearly marked on the packaging or container.

4.0 CONDITION "A", POLYMERIC MATERIAL SUPPLIER REQUIREMENTS FOR LOT CERTIFICATION:

4.1 The supplier shall perform the certification testing IAW MIL-STD-883 Method 5011 (applicable material type) to ensure compliance with the applicable drawing.

4.2 The supplier shall provide certification test data for each order. The actual test data as required in Method 5011 shall contain the following information:

- a. Part and lot or batch number of the material
- b. Name or title of operation and specification number of each process or test.
- c. Date(s) of operation or test and operator identification.
- d. Calibration control number (serial number) of all major equipment used for test.
- e. Quantity tested and accept/reject status for each operation.
- f. Specific major conditions of the test or process that are verifiable by operator including times, temperatures, optical inspection magnification and relative humidity.

4.3 **Certificate of Compliance** as defined in Document #81000.

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5.0 CONDITION "B", POLYMERIC MATERIAL SUPPLIER REQUIREMENTS FOR LOT ACCEPTANCE:

- 5.1 The supplier shall perform the acceptance testing IAW MIL-STD-883 Method 5011 (applicable material type) to ensure compliance with the applicable drawing.
- 5.2 The supplier shall provide acceptance test data for each order. The actual test data as required in Method 5011.
 - a. Part and lot or batch number of the material
 - b. Name or title of operation and specification number of each process or test.
 - c. Date(s) of operation or test and operator identification.
 - d. Calibration control number (serial number) of all major equipment used for test.
 - e. Quantity tested and accept/reject status for each operation.
 - f. Specific major conditions of the test or process that are verifiable by operator including times, temperatures, optical inspection magnification and relative humidity.
- 5.3 **Certificate of Compliance** as defined in Document #81000.

6.0 CONDITION "C" & "D", POLYMERIC MATERIAL SUPPLIER REQUIREMENTS:

- 6.1 The supplier shall perform the acceptance requirements to its own internal data requirements and shall ensure compliance with the applicable drawing. The data shall be available upon request.
- 6.2 **Certificate of Compliance** as defined in Document #81000.

7.0 ACCEPT/REJECT CRITERIA:

- 7.1 A polymeric material which fails any certification or acceptance tests described herein shall constitute a failure and the batch/lot shall be rejected.

8.0 REFERENCES:

- 8.1 MIL-STD-883 TM 5011
- 8.2 Element SCD
- 8.3 Purchase Order
- 8.4 MIL-PRF-38534
- 8.5 TTM supplier requirements for Quality, Design & manufacturing, Document #81000.

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