

PREPARED BY:	<p style="text-align: center;"><i>Multiband Imaging Photometer for SIRTf</i></p> <p style="text-align: center;">University of Arizona Steward Observatory, IR Group</p> <p style="text-align: center;">SPECIFICATION</p>	NUMBER M43I10	
C. DAVIDSON		TYPE	
APPROVALS		INSPECTION	
ENGINEERING		DATE	
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PI/DEPUTY PI		SUPERSEDES SPEC. DATED	
		REV. NEW	PAGE 1 OF 5

TITLE

INCOMING INSPECTION OF ADHESIVES, PROCEDURE FOR

1.0 SCOPE

This specification describes the requirements and procedures for the incoming inspection and criteria for acceptance for the adhesives used in the manufacture of the MIPS Ge:Ga focal plane array.

2.0 PURPOSE

The incoming inspection is required for all adhesive materials purchased for use in the manufacture of flight or flight-like hardware, to verify that the requirements of the purchase order have been satisfied and that the materials meet engineering drawing requirements.

3.0 APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of the referenced document and this specification, the requirements of this specification shall prevail.

University of Arizona

University of Arizona Safety Manual

MIPS Documents

MIPS-033A	Quality Control Plan
M43P40	MIPS Contamination Control
M43P20	MIPS Failure/Discrepancy Form

Drawings

MIPSD - 089	4 x 32 Module Assembly
MIPSD - 085	4 x 32 Module Frame Block
MIPSD - 080	4 x 32 Detector Block Assembly
MIPSD - 070	Detector Assembly

4.0 REQUIREMENTS

4.1 Materials

EPO-TEK 301 two-part transparent epoxy adhesive	Epoxy Technology, Inc.
EPO-TEK H20E two-part electrically conductive epoxy	Epoxy Technology, Inc.
EA-2216 structural epoxy adhesive	3M, Inc.

4.2 Incoming inspection of the adhesives is to be performed and tracked on a lot basis. The supplier / manufacturer's lot number, as described on the received shipping documents accompanying the shipment, shall be recorded on the inspection summary sheet, document number M43I10-A. The lot number will serve as the means for traceability as the adhesives are used in the assembly of the flight hardware.

4.3 In the event that the requirements contained herein cannot be met by the incoming adhesive, a MIPS FPA Failure / Discrepancy Report shall be generated, and the adhesives shall be red-tagged as not acceptable for use on flight hardware, as described in the MIPS Inventory Control Plan. See paragraph 5.9.

5.0 PROCEDURE

NOTES:

1 Handling, storage and disposal of chemicals are to be conducted in accordance with the University of Arizona Safety Manual.

2 Unpacking and inspection shall occur outside of the cleanroom, and adhesives shall be tagged prior to release for production.

5.1 Inspect the outer packaging for signs of damage incurred during transport. Record the results on the inspection summary sheet.

5.2 Carefully remove outer packaging, and remove contents and shipping documents. With a "cleanroom wipe" dampened with isopropanol, wipe the containers of adhesives, taking care not to damage the labels. Place the containers in a plastic cleanroom bag.

5.3 Verify that the quantity and type of adhesive requested on the UA purchase order agrees with the quantity and type listed on the shipping documents, and with the quantity actually received. Report to process engineering any disagreement in the documentation.

5.4 Verify that a minimum of 6 months remains until the expiration date of the adhesive, and that all storage requirements have been met, and that the containers are intact, in good condition, sealed, with legible labels.

5.5 Verify that a "Certificate of Compliance" accompanies the shipment, stating the manufacturer's lot number has been tested and meets or exceeds the performance criteria supplied on the Technical Data Sheet for the adhesive. Report to process engineering if the certificate of compliance is not part of the shipment.

5.6 Examine the certificate of compliance to ensure that it is complete, that the lot numbers listed for the adhesive agree with the lot numbers described on the container labels, that the shelf life and expiration date are clearly described.

5.7 Other testing may be determined to be necessary by the PI, deputy PI, or engineering, such as structural strength, conductivity, optical transparency, or vacuum stability, prior to acceptance of the adhesives for use on flight hardware. This testing may be completed in-house or subcontracted to another testing facility. If additional testing is determined to be necessary, adhesives should be treated as discrepant until dispositioned otherwise. See paragraph 5.9.

5.8 Incoming adhesives complying with these provisions shall be labeled with a green tag or label describing the lot number, date, expiration date, and other pertinent information.

5.9 Discrepancies

All failures or discrepancies shall be reported on a MIPS FPA Discrepancy/Failure Report form, M43F20, and the adhesives red-tagged until disposition, corrective action (if required) and approval signatures are obtained.

5.10 Store the adhesives as required in the clean room. For adhesives requiring cold storage, storage may occur in the lab refrigerator or freezer, provided that all the provisions of M43P40, MIPS Contamination Control, are complied with, and the containers are only opened in the clean room.

5.11 Complete the inspection summary sheet and submit it to process engineering for the permanent record file.

MIPS Adhesive Inspection Summary Sheet
M43I10 - A

Material: _____
Supplier: _____
Lot Number: _____
UA Purchase Order Number: _____ Date: _____
Operator: _____

1. Outer Packaging: No damage
 Damaged as follows: _____

2. Quantity / type ordered: _____
Quantity / type received: _____
3. Visual examination: Acceptable
 Not acceptable, as follows: _____

4. Certificate of Compliance : Received, complete
 Received, incomplete - as follows: _____

 Not received
5. Other testing conducted / results: _____

6. Acceptance/Rejection: Accepted, green-tagged
 Rejected, red-tagged
Cause for rejection / corrective action:
 Waiting for Certificate of compliance
 Certificate incomplete
 Damaged during shipping, re-ordered
 Wrong material shipped, re-ordered
 Material shelf-life expires within 6 months
 Other - as follows: _____

7. Approval: Process Engineering / Quality Engineering
