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CRaTER Materials Identification And Usage List (MIUL)

Dwg. No. 32-04001

Revision 01

September 16, 2005

The CRaTER Materials Identification and Usage List (MIUL) includes Polymeric Materials, Inorganic Materials, Lubrication Usage, and Materials Process Utilization. These inclusions satisfy the four (4) Data Items numbered 11-5, 11-9, 11-11, and 11-13 respectively.

The design of the CRaTER Instrument is very immature at this time. Therefore, the materials listed in this revision of the MIUL are, for the most part, materials typically used on a space flight instrument. As the design matures, the fidelity of the MIUL will grow to represent the As-Built Materials List.

| DESCRIPTION | MANUFACTURER | PART # | QUALIFICATION | USED ON: | AMOUNT | CONDITIONING |
|---------------------------------|-------------------|---------------------|-------------------------|----------------------|-----------------------------|----------------------|
| Aluminum Tape | 3M | #425 | GSFC Material Selection | Internal Harness | TBD | |
| CopperTape | 3M | #1181 | GSFC Material Selection | Overtape Heaters | TBD | |
| KaptonTape | 3M | #1205 | GSFC Material Selection | Electronics Assembly | 10 Sq.in. | |
| Teflon Tape | furion | temp-r-tape type C | GSFC Material Selection | Hatness | 10 Sq.in. | |
| Marking Ink | Hysol | 50-110R-Wt./ CAT 20 | GSFC Material Selection | Electronics Assembly | 1 Gram | Vacuum Bake @ 80°C |
| Epon Epoxy | Miller-Stephenson | Epon 828/V125 | GSFC Material Selection | Electronics Assembly | 10 Grams | Vacuum Bake @ 80°C |
| Conformal Coating | Conap | CE 1155 | GSFC Material Selection | Electronics Assembly | 160 Sq. In. .001 In. Thi | Vacuum Bake @ 80°C |
| Urathane-staking | Furane | Uralane 5753 | GSFC Material Selection | Electronics Assembly | 10 Grams | Vacuum Bake @ 80°C |
| Epoxy-structural | Hysol | EA-934NA | GSFC Material Selection | Electronics Assembly | TBD | Vacuum Bake @ 80°C |
| Epoxy-thermal | 3M | EC-2216B/A | GSFC Material Selection | Electronics Assembly | TBD | Vacuum Bake @ 80°C |
| Epoxy-RTV | GE | RTV-566 | GSFC Material Selection | Connector Potting | TBD | Vacuum Bake @ 80°C |
| Epoxy | Hysol | EA-9313 | GSFC Material Selection | Electronics Assembly | TBD | Vacuum Bake @ 80°C |
| Braided Shield | Belden | #8661 | GSFC Material Selection | Hatness | TBD | Vacuum Bake @ 80°C |
| Bondable Terminal | Micro-measurement | CPF-60D (Polyimide) | GSFC Material Selection | Electronics Assembly | TBD | Vacuum Bake @ 80°C |
| Cable Clamp | TA Mfg. | TA552TD03 (Teflon) | GSFC Material Selection | Electronics Assembly | TBD | Vacuum Bake @ 80°C |
| Cable Covering | Bentley Harris | Exp. sleeve 686DM | GSFC Material Selection | Hatness | TBD | Vacuum Bake @ 80°C |
| Teflon Grommet | NMC | G51TE-C | NASA GSFC-S-311-P | Harness | TBD | Vacuum Bake @ 80°C |
| Tefzel wire tie | Panduit | PLT Series (blue) | GSFC Material Selection | Hatness | 50 each | Vacuum Bake @ 80°C |
| Wire Tie, mount | Panduit | | GSFC Material Selection | Hatness | 12 each | Vacuum Bake @ 80°C |
| Printed Ckt. Board | Various | Polyimide | GSFC Material Selection | Electronics Assembly | 160 Sq. In. .062 In. Thi | Vacuum Bake @ 80°C |
| Shrink Tubing | Raychem | RNF-100 (Kynar) | GSFC Material Selection | Electronics Assembly | 60 inches | |
| Teflon Sheet | AIN Plastics | | GSFC Material Selection | Electronics Assembly | 144 Sq. In. | Vacuum Bake @ 80°C |
| Tissue Equivalent Plastic (TEP) | Standard Imaging | A150 | Tested by GSFC | Telescope | 22.55 Cu. In. | Pre-Conditioned by M |
| Aluminum 6061-T6 | Alcoa/Reynolds | | | Telescope and covers | 2.74 lbs. | |
| Aluminum 7075 | Alcoa/Reynolds | | | CRATER Housing | 4.0 lbs. | |