



Materials Engineering Branch

TIP*



No. 010 Precautions Associated with the Use of Aeroglaze Z306

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One of the more widely recommended black paints for spacecraft use is polyurethane identified as Aeroglaze Z306 (or Chemglaze Z306). It has excellent outgassing properties and good adhesion to most substrate surfaces both metallic and non-metallic without the use of a primer. The recommended primer for Aeroglaze Z306 is Aeroglaze 9924 Wash Primer that improves adhesion and is a must for some surfaces.

There are many instances where the surface being painted requires that a portion be masked off. This is usually accomplished with a suitable tape. Also, in many cases, the unit being painted includes screws that may have to be removed at some later date to allow disassembly. When Aeroglaze Z306 is applied (brushed or sprayed) onto a surface, it forms a skin-like film that is continuous over the substrate/masking tape interface as well as over screw/substrate locations. Consequently, unless special precautions are taken, tearing of the paint will occur when, after the paint has dried, the masking tape or screw is removed. The damaged paint is difficult, if not impossible, to repair.

This problem can be easily avoided if the user remembers to remove any masking tape within the first 5 or 10 minutes after applying the paint. For areas where screws are located, the screws should be loosened so that they are out or away from the surface. Both can still be painted simultaneously.