

MICROWAVE ANTENNAS
PARABOLIC ANTENNAS
GENERAL MAINTENANCE
RESIN EROSION

1. RESIN EROSION OF RADOMES AND FEED WINDOWS

1.01 Over a period of time, resin erosion may affect the structural strength of glass cloth polyester resin radomes and feed windows. Inspection and maintenance should help to extend their life.

1.02 This section is reissued to add ordering information for the Hetrolac 105 resin. This reissue does not affect Equipment Test Lists.

A. Inspection

1.03 A visual inspection should be made at four-year intervals for resin erosion on the radomes and feed windows listed below. When the feed horn is covered with a radome, inspection of the horn is not necessary.

KS-15852 List 4 and 9 Feed Window

KS-15970 List 2 Feed Window

KS-15970 List 4 Radome

KS-16386 List 1 Feed Window

KS-16386 List 5 Radome

KS-19529 List 4 Radome

KS-19530 List 4 Radome

KS-20409 List 4 Radome

KS-20410 List 4 Radome

1.04 When visual inspection shows that glass fibers are exposed to the extent that structural strength is seriously affected, the assembly should be replaced. Some things to look for are localized areas of buckling, resin cracks, and exposed ends of glass fibers. If the laminate is structurally sound, its life will be significantly extended by application of a clear ultraviolet-absorbing coating, such as Hetrolac 105 (clear) or an approved equivalent. The procedures for recoating the radome or feed window are given in Part B.

B. Maintenance

1.05 Following are the procedures for recoating radomes and feed windows with Hetrolac 105 (clear), which is available from the Durez Plastics Division, Hooker Chemical Corporation, North Tonawanda, New York.

(1) Prepare the surface by lightly sanding with a fine sandpaper.

(2) Wipe the surface with a clean cloth dampened with KS-19578 List 1 trichloroethane, or a similar solvent, to remove dust and grease.

(3) If the surface is in good condition, a single liberal coat of Hetrolac 105 (clear) applied by brush or spraying, will be sufficient. If the surface is somewhat eroded, a second coat should be applied.

Note: If a second coat is necessary, allow at least 20 minutes, but no more than 30 minutes, drying time between coats.

C. Ordering Information

1.06 Hetrolac 105 (clear) may be ordered in 1 or 5 gallon cans. One gallon will cover approximately 200 square feet.