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Norland Blocking Adhesive 107

NBA 107 is a single component, UV curing adhesive used for temporary bonding of lenses to metal polishing mounts or where bonded components need to be easily separated in the future. The adhesive cures in minutes at room temperature by exposure to long wave UV light and eliminates the heat induced strain typical of the old fashioned hot pitch blocking methods. NBA 107 is specifically formulated to provide low shrinkage and low strain to further minimize any potential strain on the lens during the blocking process. Debonding is readily accomplished by heating in hot water with a small amount of detergent or wetting agent added or with acetone.

The adhesive cures only by exposure to UV light in the range of 350 to 380 nanometers. Recommended light sources include mercury lamps, sun lamps, fluorescent black lights and xenon lamps. Norland Products sells a variety of light sources optimized for curing our adhesive. The adhesive needs 5 joules per centimeter squared of long wave UV energy to fully cure. Cure time will depend on the amount of UV energy the light source used generates at the surface of the adhesive.

Debonding is accomplished by placing parts in a detergent and water solution preheated to 80° C or soaking in acetone. Lenses separate in 10 to 60 minutes. Recommended detergent agents are Orvis(PPG) or dishwashing liquids such as Joy or Dawn used at the 2% level. Debonding time is a function of surface area. Plano surfaces will require more time than surfaces with only slight edge contact, therefore annular ring designs of the mounting block are most efficient. Relief grooves or slots in the metal block may also be used for promoting the deblocking process by allowing the solution to come in contact with more of the adhesive.

Lenses may also be debonded just by heating between 80 and 100° C. After separation, the components and tools are cleaned in the detergent/water solution.

Shelf life of the liquid is at least 6 months at room temperature if stored in the original container away from UV light. Prolonged skin contact should be avoided and affected areas should be washed with soap and water. Avoid prolonged vapor inhalation and use in a well ventilated area.

Typical Properties of NBA 107

Solids :	100%
Viscosity at 25° C	350cps
Refractive Index of Cured Polymer	1.51
Elongation at Failure	5%
Modulus (psi)	800
Tensile (psi)	76
Hardness - Shore D	15

The data contained in this technical data sheet is of a general nature and is based on laboratory test conditions. Norland Products does not warrant the data contained in this data sheet. Norland does not assume responsibility for test or performance results obtained by users. It is the users responsibility to determine the suitability for their product application, purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this technical data sheet shall act as a representation that the product use or application will not infringe a patent owned by someone other than Norland Products or act as a grant of a license under any Norland Products Inc patent. Norland Products recommends that each user test its proposed use and application before putting into production.