

Technical Information Bulletin

Basing Cement

The SYLVANIA brands of basing cements were formulated to satisfy specific requirements in the electronic and lighting industries. These cements offer maximum flexibility during curing as well as adhesion and resistance to torque during the life of the tube or lamp.

Basing cements are physical mixtures of thermoplastic and thermosetting resins combined with marble flour, an inert filler. They are used as adhesive fillings to seal the bases to the envelopes in incandescent, fluorescent, and photoflash lamps as well as cathode-ray-tubes. The

formulations will adhere to glass, aluminum, brass, and plastics.

The two standard basing cement formulations, their normal application, and general characteristics are shown below:

Sylvania Type	Normal Application	Organic Content	Filler
BC-1631	fluorescent	15.5%	80% minus 200 mesh
BC-1652	incandescent/compact fluorescent/fluorescent	15.5%	80% minus 200 mesh

Applications

The most satisfactory consistency for basing cement will vary, depending upon the particular application. The following formulation will, in general, be found satisfactory. Slight variations from this can be made by the user to satisfy each individual application.

Basing cement is mixed in a ratio of 1 pound of basing cement powder with 40 to 45 cc denatured ethyl alcohol (ethanol). The exact amount of alcohol used will determine the final consistency of the mixture. If there is any doubt on this point, it is suggested that the lesser amount of alcohol be used since it is always possible to add more alcohol later.

About 9.1 grams of malachite green is added per pound of basing cement powder. This is a dye which is used to determine the proper curing point and is not at all critical as to quantity used.

In mixing these materials, it is suggested that, first, the alcohol be measured out into a container, next the malachite green be added, then the basing cement added slowly with brisk stirring. The mixture should be stirred until well mixed and then permitted to stand for several hours, preferably overnight, before using.

In use, the cement is heat cured until the green color fades. There are many time and temperature cycles which can be used to achieve this. The curing cycle is not critical--the main point is to continue heating until the green color has faded.

The cement expands appreciably during curing; therefore, the minimum amount should be used.

Availability

All types are available for delivery from stock. The standard package is a 41-gallon Leverpak drum containing 90 kilograms.

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