4. Pearlaceous Pigment

- **Staining Dyes**: Halogenated derivatives of fluorescein called BROMOACIDS, e.g. Eosin, tetrabromofluorescein.

  Eosin also called D&C Red no 21. It can give rise to sensitization or photosensitization leading to cheilitis (inflammation of red portion of lips). Eosin is orange in color but at pH 4 it changes color to red when it comes in contact with the skin tissue of lips giving an indelible stain.

  To prevent the bromoacids dye from converting to a highly colored salt form in the lipstick mass, 0.1% citric acid may be added to the pigment grind.

- **Bromoacid solvents**: For low quantity of bromoacids liquid fatty alcohols, dipropylene glycol or castor oil can be used.

  - TiO$_2$ up to 4% is an effective white pigment for obtaining pink shades and giving opacity. It is also used to modify shade of basic pigment due to its brightness and covering power and hence preferred over ZnO.

  - Pearlaceous pigments provide opacity—Mica coated with TiO$_2$ or with iron oxide as well as bismuth oxychloride.
    Iron oxide for russet and brown shades.
    Ultramarine blue (ferric ferrocyanide) and chromium pigment (for external use only) are not used in lipsticks.

  - Pigment is a white or colored chemical compound which is insoluble in a particular solvent. Organic pigments which are primarily organic lakes provide red, orange, violet tones.
containing a total of 60 to 144 cavities. For Split type, cooling table is required.

2) Fully automatic moulds are of the cylinder and piston type with a large no. of single cavity units mounted on turntable. The fillers are ejected into the cases by raising the pistons and blowing air through small holes in the tips. Over heating is avoided and also rapid stirring is avoided to prevent entrapment of air. After moulding, sticks can be stored in an inert container at low temperature for up to a week before fitting into lipstick holders and then subjected to flaming.

**IV Flaming** - in which the lipstick is passed rapidly through a small gas flame to melt the surface layer to remove any surface spots and produce bright, smooth and glossy surface.

The lipstick is rotated so that entire surface is exposed to heat. Finally the sticks are packed in containers and examined for visual defects.

**Packaging of Lipsticks:**

Length of the lipsticks not more than 50mm to ensure that it does not snap in use. It should be packed in a secure case so as to not color other things.

The cover should have a good fit and ensure protection of the product.

Lipstick is likely to be ingested hence contamination should be taken care of.

The most common design is a Holder with **twist up mechanism** which allows the lipstick to be wound-up to a convenient height for use.