Plastic bead identification guide by Rosanna Falabella

Odors of most common plastics and other materials used for beads:

Bakelite (phenolic resin) will smell like phenol (carbolic acid), a musty, medicinal odor.

Polystyrene and **Polyester (Alkyd) Resin** will smell like styrene, a "plastic" odor. **Acrylic (Lucite or polymethylmethacrylate)** will either have no smell or a faintly fruity smell.

Galalith - odor of slightly burned or rancid milk

Celluloid - odor of camphor (like Vick's vaporub or mothballs)

Cellulose Acetate - odor of vinegar

Amber - natural amber gives off a pleasant pine odor.

Horn - odor of burning hair; horn may be confused with plastic.

Odor tests (requires a good sense of smell):

1. Reamer test: Use a diamond grit bead reamer to ream a small amount of sawdust from inside the hole. Immediately sniff the dust on the reamer to detect the odor.



Diamond grit bead reamer

- <u>2. Hot water test</u> run tap water until very hot and use it to heat up the bead. Smell the bead to determine odor as in the reamer test. *Note:* Celluloid does not seem to smell like camphor in the hot water test still under investigation.
- 3. Hot needle test heat up the tip of a pin or needle (use pliers to hold it!) and touch the bead. The needle will sink into acrylic, celluloid, amber or polystyrene but not into Bakelite, Galalith, horn or polyesters. For polyester, you should see a small pit with white crumbs in it. Carefully sniff the odors, which will be the same as in the previous 2 tests.

The best way to learn the plastics is to run these tests on beads or other items of known composition. To learn the odor of polystyrene, for example, take a piece of a plastic container that has recycle marking #6 and test it.

**BE CAREFUL OF SNIFFING SMOKE FROM BURNING PLASTICS SINCE THERE ARE POTENTIALLY TOXIC SUBSTANCES!!

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