



FIBER BURN TEST

It has happened to everyone. The tag on a garment has been lost or obliterated and you cannot recall whether the fabric is wool, acrylic, cotton, or silk—something you need to know for both cleaning and care. A few simple burning tests, though not entirely foolproof, will give you some indication of the fabric's makeup. Place the yarns in petri dishes and light them with a match or cigarette lighter. Then compare the reaction, odor, and residue with those described in the chart below. Things to look for as the yarns burn:

- 1) How rapidly did the fabric burn?
- 2) Did you observe any sizzling of the fabric as it burned?
- 3) Did you notice an odor?
- 4) What residue was left? Ash or bead? Or both?

| FIBER | REACTION TO FLAME | ODOR | RESIDUE |
|--------------------|--|--|--|
| Cotton | Ignites and burns with Orange-yellow flame | Burning paper | Gray ash |
| Linen | Same as cotton | Burning paper | Gray ash |
| Wool | Burns slowly with small Sizzling flame Usually self-extinguishing | Burning hair | Crisp, irregular, crushable black bead |
| Silk | Ignites sparking flame Usually self-extinguishing | Burning hair Not as pungent as wool | Crisp, round, black bead that is crushable |
| Rayon | Ignites readily Burns rapidly Sizzles slightly | Burning paper More pungent than cotton | Grayish-black ash |
| Acetate-Triacetate | Ignites and sizzles Melts as it burns Has orange flame | Acid odor, like vinegar | Hard, irregular black bead |
| Nylon | Shrinks from heat; melts Burns with difficulty | Celery | Hard, round, gray or fawn-colored bead |
| Acrylic | Melts as it burns Fuses as flame is approached Bright sputtering flame Black smoke | Acid-like | Hard, irregular black bead |
| Polyester | Fuses and shrinks from flame Burns slowly; melting Self-extinguishing | Heavy pungent | Hard, brownish beige bead |