

FABRIC BURN TEST CHART dresspatternmaking.com

The fabric burn test is best done outside or in a well ventilated room; the smell of synthetic burning fabric can be unpleasant, hazardous and linger. Note that the test is not 100% accurate due to fabrics that are blends. These fabrics will give a result that is a combination of both fibers. Also some fabrics may have chemicals added which also increases the unreliability of the burn test.

Tools

- ★ fireproof dish (e.g. ceramic, glass, metal tin)
- ★ tweezers
- ★ matches
- ★ water in case you need to put out the fire

Method

- ★ Cut a small piece of fabric (1 inch square)
- ★ Hold one side with tweezers over fireproof dish
- ★ Light the other end with match
- ★ Let the piece burn completely, dropping the fabric when necessary
- ★ Take note of the smell and the smoke as it burns, BUT do not put the burning fabric directly under your nose
- ★ Leave the residue cool at the bottom of the dish so that you can handle when cool

| | Description | Flame & Residue | Smell | Smoke | Ash |
|----------------------|---|--|---------------------------|--------------------------------------|---|
| Cotton | ★ natural cellulose fiber | ★ burns quickly ★ may flare ★ no beads remain after burning may continue to glow | ★ burning paper | ★ grey or white | ★ fine and soft ★ easily crumbled |
| Hemp | ★ natural cellulose fiber | ★ burns quickly ★ bright flame ★ no beads remain | ★ burning leaves or wood | ★ grey or white | ★ grey |
| Linen (Flax) | ★ natural cellulose fiber | ★ takes time to ignite ★ flame is easily extinguished ★ may glow after flame extinguished ★ no beads remain | ★ burning paper | ★ grey or white | ★ fine and soft |
| Rayon | ★ man-made cellulose fiber | ★ burns without flame ★ does not melt ★ no beads remain | ★ burning paper | ★ slightly hazardous | ★ soft grey |
| Silk | ★ natural protein fiber | ★ burns slowly ★ fabric curls away from the flame ★ leaves a dark crushable bead | ★ burned hair or meat | ★ little or no smoke | ★ dark gritty ash when beads crushed |
| Wool | ★ natural protein fiber | ★ burns slowly ★ fabric curls away from the flame ★ leaves a brittle crushable bead | ★ burned hair or feathers | ★ dark smoke | ★ gritty powder or dark, brittle, easily crushable bead |
| Acetate & Triacetate | ★ manufactured protein fiber ★ made from xyz | ★ flares quickly ★ melts and drips ★ leaves a hard bead that cannot be crushed | ★ hot vinegar | ★ black hazardous smoke | ★ no ash |
| Nylon & Polyamide | ★ synthetic fiber ★ made from petroleum | ★ shrinks away from flame ★ melts and drips ★ leaves a hard bead that cannot be crushed | ★ odour like celery | ★ fume is hazardous | ★ no ash |
| Polyester | ★ synthetic polymer fiber ★ made from coal/petroleum | ★ burns and melts ★ shrinks away from flame ★ leaves hard brown bead | ★ chemical odour | ★ black smoke ★ fume is hazardous | ★ no ash |
| Acrylic | ★ synthetic fiber ★ made from gas & petroleum | ★ flares up, burns quickly ★ shrinks away from flame ★ leaves hard irregular beads | ★ acrid odour | ★ black smoke ★ fume is hazardous | ★ no ash |