



California State Fire Marshal Information Bulletin

January 8, 2010

FIELD TESTING FOR FLAMMABILITY: MATCH FLAME TEST

State regulations require that drapes, hangings, curtains, etc., that would tend to increase fire and panic hazards in Groups A, E, I and R-3.1 occupancies be made from non-flammable material or treated and maintained in a non-flammable condition by California State Fire Marshal (CSFM) registered chemicals or processes. (See California Code of Regulations [CCR], Title 19, Section 3.08.) CSFM evaluates materials, chemicals and applicators and issues certificates of registration to those who comply with state standards.

Local fire authorities may encounter existing conditions where an alternate means of compliance may be warranted. Field-testing for flammability may be accepted (CCR, T-19, Section 1310) if fire and panic safety can be maintained while permitting reasonable economic or time allowances for a building owner or exhibitor.

The most commonly used method of field-testing is the "match flame test". The "match test" is based on requirements of small-scale fire tests. It is important to note that field-testing may not be used in place of the requirements for certification of new products.

MATCH FLAME TEST

- Materials:** Specimens must be dry. Specimen size should be a minimum of 3 inches wide by 10 inches long. Flame exposure should be from a common wood kitchen-type match.
- Method:** The test is performed in a draft-free and safe location. The sample is suspended (preferably held with tongs or some similar device) with the long axis vertical. The flame is applied to the center of the bottom edge with the bottom edge ½-inch above the flame. After 12 seconds of exposure, the match is removed.
- Requirements:** During the exposure, flaming shall not spread over the complete length of the sample or in excess of 4 inches from the bottom of the sample. There shall not be more than 2 seconds of afterflame. Materials that break and drip flaming particles shall be rejected if the materials continue to burn after they reach the floor.

The authority having jurisdiction (AHJ) shall use reasonable judgment in taking test specimens to avoid unnecessary damage to the product/article. For further information concerning field-testing for flammability or information concerning the California State Fire Marshal's Flame Retardant Program, contact Jeannie Smith, Deputy State Fire Marshal, at (916) 445-8533, or by email at jeannie.smith@fire.ca.gov

Information can be downloaded from our Web site at:

http://osfm.fire.ca.gov/strucfireengineer/strucfireengineer_flameretardant.php