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Fire Barrier F117, F187 & F287

Fire barrier can be used to help chair manufacturers pass the California Technical Bulletin 133 (CAL 133) test. CAL 133 is a fire standard that is designed for upholstered furniture (not fabric) intended for use in high-risk occupancies (such as health care facilities, day care facilities, jails, etc.) where safe egress is an issue. The fabric products themselves do not pass or fail the test, as the test is applicable only to chairs, not fabrics.

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O F M A I N E
A True Textiles, Inc. brand

The polyurethane foam commonly used in chair cushions is easily ignitable and has a high rate of flame spread. Fire barrier products are intended to go between the seating fabric and the polyurethane foam cushion and prevent ignition of the foam, which will cause failure of the test. They can either be double-upholstered or installed as laminated materials.

These products include an uncoated knitted fabric (F117), in which the yarn is constructed of a fiberglass core with a modacrylic sheath, and a coated knitted fabric (F187 & F287), in which the yarn has the same fiberglass core, but the sheath is made of cotton, and a backcoating containing “expandable graphite” is applied.

The purpose of the sheath material is to char and swell when exposed to flame, thus creating an insulating barrier between the flame and the polyurethane foam in the seat. The core of the yarn is an inert material that does not burn.