

## FIBRE IDENTIFICATION

The proper identification of fibres is important in determining the correct cleaning method and chemicals to be used in each situation. The two main classes of fibres are natural and synthetic. Identifying the fibre type is essential, not only to ensure effective cleaning, but more importantly to avoid damage to the fibre or fabric through incorrect chemical use and cleaning methods.

### THE BURN TEST

The burn test is a simple technique used to identify fibres. When identifying fibres using the burn test, it is important to observe the colour and action of the flame, the colour and odour of the smoke, and, the colour and feel of the ash. However, to differentiate between natural and synthetic fibres, the “clean finger/dirty finger” test is extremely useful and very simple.

### CLEAN FINGER/DIRTY FINGER TEST

1. Using a small pair of scissors, obtain a small sample of the carpet fibre or fabric to be cleaned from an inconspicuous place.
2. Holding the sample with a pair of tongs or tweezers, ignite the sample with a lighter.
3. Allow the ash to fall onto a receptacle, and once cool, rub them between your fingers.
4. Observe the appearance of your fingers. If fingers remain clean, the fibre is synthetic, if fingers are dirtied the fibre is natural.
5. By observing the flame and smoke as well as the ash a more accurate identification can be made.

### BURN TEST CHART

FIBRE	FLAME	ODOUR	ASH
<b>Wool</b>	<b>Orange</b> Sputters out. No smoke.	Burning hair	Irregular, black, crumbles to a coarse powder
<b>Nylon</b>	<b>Blue base with orange tip.</b> Burns evenly. No smoke. White puff when extinguished.	Celery Sealing wax	Round bead, gray/brown to black, hard.
<b>Polypropylene</b>	<b>Blue base with orange tip.</b> Burns evenly and rapidly. No smoke.	Asphalt/tar	Round bead, tan to brown, hard.
<b>Cotton</b>	<b>Orange</b> Burns evenly. Smolders. No smoke	Burning paper	Irregular glowing ember, gray or black, crumbles to a fine powder.
<b>Acrylic</b>	<b>White/Orange</b> Sputters. Black smoke. Burns rapidly.	Acrid Burnt meat	Irregular, black, hard crust.
<b>Polyester</b>	<b>Orange</b> Sputters. Sooty, black smoke.	Sweet/fruity	Round, shiny black, hard.