

### FlamaSol FR™



## Our solutions center

The PCC Solutions Center developed FlamaSol FR<sup>™</sup> in response to a rising need in the marketplace for safer flame resistant plastics.

Our team of scientists at PCC tested a wide variety of materials under simulated temperature and combustion conditions to find the best formulations for our customers.



# PCC now offers a new line of flame retardant systems for polymers.

FlamaSol FR, a protected proprietary technology, contains no decabromodiphenyl oxide (decabrome), a common ingredient in most flame retardant packages.

Decabrome is considered potentially toxic and is thus being eliminated in flame retardant formulations, with manufacturing scheduled to cease in 2012.

PCC's new non-deca-brominated flame retardant system produces superb extinguishing performance without the use of this hazardous chemical. FlamaSol FR is ideal for use in construction materials (electrical conduit, junction boxes, switch boxes), warehousing products (shelving and pallets), personal electronic equipment (computers, printers and televisions) and other applications where flammability or ignition is a concern. Products made with FlamaSol FR will self-extinguish (see graph on back), protecting surroundings and personnel from fire hazards.

FlamaSol FR surpasses in-house testing standards comparable to UL 94 and ANSI 4996 for plastic pallets and performs better than our previous flame retardant systems. FlamaSol FR is appropriate for use in injection molding, extrusion and blow molding applications.

#### The Art & Science of Color

### FlamaSol FR™





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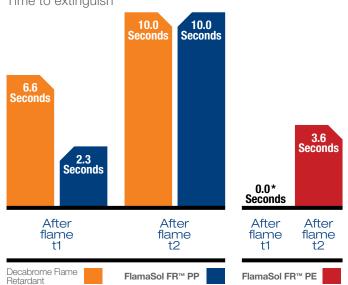
#### Availability

133385SC Flamasol FR Natural PP 133386SC Flamasol FR White PP 620996SC Flamasol FR Black PP 133410SC Flamasol FR Natural PE

- FlamaSol FR is available in custom colors and formulations to meet your specific needs.
- > PCC is currently developing flame retardant systems for acrylic, polystyrene, PVC and other resins. Contact your account representative for more information.

# Why is decabrome being phased out?

There is growing evidence that PBDEs persist in the environment and accumulate in living organisms, as well as toxicological testing that indicates these chemicals may cause liver toxicity. Environmental monitoring programs have found traces of several PBDEs in human breast milk, fish, aquatic birds, and elsewhere in the environment.



**Protocol:** A torch was used to simulate the UL94 flame test. The flame was held approximately 10mm from a 2 1/2" x 1 3/4" x 1/8" suspended plaque. After burning the part for 10 seconds, the flame was removed. This chart indicates the self-extinguish times. \*No after-flame occurred on flame t1.

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#### For more information contact Timothy Workman at tworkman@plasticscolor.com or call 440-670-8802.



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#### In-house burn tests Time to extinguish