EARLY WARNING EFFECT FORMULATION

koroseal
surface-scape your vision®

LIFE SAVING WALLCOVERING

The formulation to produce Koroseal Wallcoverings (the "Wallcoverings") gives off an Early Warning Effect when it is heated to a point below fire ignition temperature. This can save lives by giving people extra time to leave a room before there's smoke or open flames.

The life-saving time made possible by this Early Warning Effect can vary from only a few seconds, in the case of a fast moving fire, to as much as a half hour or more when the heat of an impending fire is slowly building in intensity.

This Early Warning Effect formulation works when as little as one (1) square foot of the Wallcovering is heated to about 300 degrees Fahrenheit - well below the ignition point of most common room materials. At that point, the wallcovering gives off an odorless and colorless vapor that will set off the alarm on an ionization-type smoke detector.

Consumer Reports magazine ran an article that claimed more than 85% of the commercial smoke detectors installed in the U.S. are ionization-type.

The formulation of the Early Warning Effect has been demonstrated in a series of tests conducted by an independent laboratory in Texas.

Some Questions and Answers About the Wallcovering Early Warning Effect Formulation

Q. How does the Early Warning Effect Work?

A. If you heat one square foot section of the wallcovering to 300 degrees Fahrenheit, it gives off an odorless and colorless vapor that will trigger an ionization smoke detector alarm.

Q. How does 300 degrees Fahrenheit compare to the temperature it takes to start a fire?

A. 300 degrees Fahrenheit is well below the temperature needed to ignite most common room materials. Here are some examples of the ignition temperatures of most common materials:

Materials	Degrees, F.
Paper, Newprint	445
Cotton	490
White Pine, Shavings	500
Polyurethane	660
Polyurethane Foam, Rigid	780
PVC	850
Nylon, Fiber	990

Q. What are ionization-type smoke detectors and how common are they?

A. Ionization-type smoke detectors utilize a low-level radiation source to generate a beam that can be interrupted by charged particles. It is the single most popular smoke detector on the market today.

A Consumer Reports article estimated that 85% of the commercial smoke detectors in use today are ionization-type.

Q. How would I know if my smoke detectors are ionization-type?

A. Take the smoke detector off the wall or ceiling and examine the backside of it. If it is an ionization-type, there will be the symbol for radiation prominently displayed on the back. (The radiation symbol looks like a three bladed propeller.)

Q. Will early Warning Effect formulation detect a fire in a wastebasket or a cigarette smouldering on a bed or a couch?

A. No, the Early Warning Effect detects heat on the Wallcovering. It does not detect smoke or open flame. The normal operation of an ionization-type smoke detector installed according to manufacturer's instructions should handle smoke or open flame situations. As long as the smoke detector is installed according to manufaturer's instructions, the Early Warning Effect will function. Most manufacturers call for a smoke detector for every 900 square feet of room space.

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Q. Wll air conditioning or heating systems interfere with the Early Warning Effect formulation's operation?

A. Under normal conditions, a functioning air conditioner or heater will have no signicant effect. It is important to note that air currents in a room will affect the flow of any vapor. The air currents from normal heating and cooling operations will probably help the Early Warning Effect work more effectively.

Q. Does Teflon coating or an ink wipe interfere with the Early Warning Effect formulation?

A. Neither Teflon coatings nor ink wipes have a significant impact on the working of the Early Warning Effect.

Q. In what kinds of situations will the Early Warning Effect work to warn people of an impending fire?

A. A pretty wide variety of situations. It will be especially valuable in bathrooms where an occupant has left a wall-hung hairdryer running or a curling iron running until it overloads and heats the surface it's on to its ignition point. Or in a situation where there's a fire on the other side of the wall and the occupants don't hear the other room's smoke detector alarm. Or when a through-the-wall heating/cooling unit short circuits or there's an electrical fire in the wall. There are more, but this gives you the idea.

Q. Could direct sunlight set off the Early Warning Effect?

A. No, not under normal circumstances even if the wallcovering is used in a light well or an atrium situation. Unfocused or unmagnified light simply cannot raise the temperature of the Wallcovering enough to trigger the Early Warning Effect formulation.

Q. Could we use just the Wallcovering on an accent wall and still get the benefits of the Early Warning Effect formulation?

A. Yes, provided the source of the heat occurs in or on the front or back of the wall covered by the Wallcovering. If the heat source involves a different wall, the Early Warning Effect formulation will not function.

Q. What is it in the formulation of the Wallcoverings that makes the Early Warning Effect formulation work?

A. We're sorry, but the formulation of our Early Warning Effect must remain proprietary information.

This chart shows how Early Warning Effect® formulation acts over a given time period with a steady flow of heat. This is not typical of a fire environment as no two situations are alike. However, it does give you some idea of how EWE can work.