Buildings threatened by wildfire can be mitigated through the development of a strategy that addresses the built environment, vegetation, and other combustible materials on the property. Use of noncombustible materials and ember-resistant design features are examples of strategies that reduce the vulnerability of homes to wildfire. The use of coatings has been suggested as a strategy to provide enhanced protection against extended radiant heat and flame contact exposures for homes located in wildfire-prone areas, particularly when a combustible siding product is installed and other homes are nearby. In these cases, it can be argued that applying a coating is a less expensive option than replacing a combustible product with one that is noncombustible.

**COMMON USE OF COATINGS**

The term “coatings” is a generic term referring to products that are applied to various building components. These building components can be combustible or noncombustible materials and are used to provide added protection from various environmental factors. The most common use for coatings applied on wood, and wood-based products, is to provide protection from water or water vapor where the coating reduces the rate that moisture enters and leaves. Depending on additives and the chemical makeup, coatings can also improve the fire retardancy or fire resistance of the wood or other combustible material.

**GELS**

Another example of a coating is what’s commonly referred to as a “gel.” Gels are water absorbent polymers that can be applied to a building component to provide temporary protection from radiant heat or flames. You may have heard of these products being applied to homes when a wildfire is threatening. Once applied, the absorbed water starts to evaporate, whether or not the wildfire actually arrives, and therefore the time that a gel coating is effective is limited. The effective time is on the order of hours.

**RECOMMENDATIONS**

Given the current performance limitations of coatings, we recommend other proven mitigation strategies to reduce the vulnerabilities of homes to wildfire, such as using ember-resistant design features and creating and maintaining the home ignition zones. For more information visit: disastersafety.org/wildfire