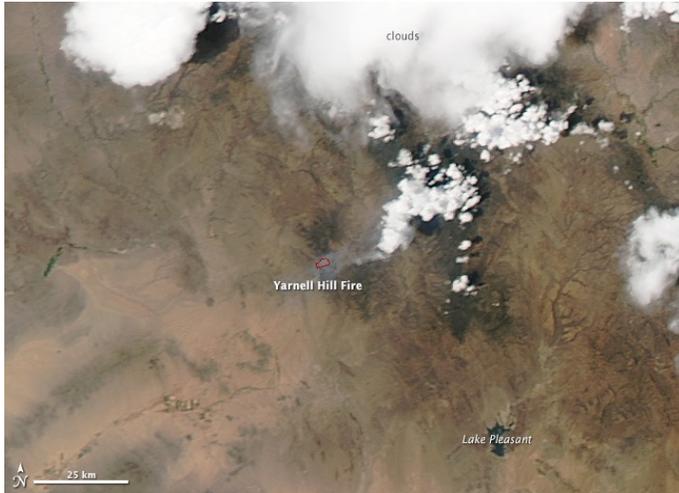


Build a Weatherproof, Fireproof Home

Hybrid Insulated Concrete Forms—combined with flame-resistant roofing and siding—make for one safe house

Mike Foster



While thousands of Arizonans, Coloradans, Oklahomans and Southern Californians contemplate how they'll rebuild their homes splintered by nature's extreme winds or charred by the wildfires ripping through the region, they'll undoubtedly look for safe, durable materials that don't easily blow away or burn.

The answer for many will be ICFs (insulated concrete forms)—polystyrene blocks that fit together like Legos to form a home's shell. Filled with concrete—one of the strongest and most fire and heat-resistant of construction materials—ICFs create solid insulated walls that lock out energy, sound, critters, fire and weather while standing strong in flood, tornado, hurricane or earthquake. EF Block is a hybrid ICF; they withstand a 2200°F fire for up to four hours and survived the Tuscaloosa, AL tornado direct hit.

So if you live in a region of the country that's vulnerable to wildfires, tornados or hurricanes, or if you want to protect your property—and your family—from natural or manmade disasters and fire hazards caused by drought, lightning, and simple human carelessness, check out EF Block to help you build better and safer. EF Block helps build safe houses.

Fire prevention occurs by using the EF Block in locations where wildfire is common and people are still building houses. Fires do not usually spread from house to house in a big wall of flame. Instead, floating embers land on dried roofs, ignite and grow until the entire house is burning. Embers also find their way inside a house through vents or window and door openings. Constructing a fireproof home does not ensure a home will never burn, but there's a much better chance of surviving fire in the area.

Consequently, it's not a question of whether a fire will damage a structure, but a question of when. It simply takes longer for fire to affect fire-resistant materials. The key is to construct a building that is rugged and resistant—one that remains intact in extreme weather and one in which a fire would take effect slowly, allowing the occupants the ability and time to escape—an EF Block building.

ICFs have been around for decades, but their use has mostly been limited to commercial and institutional buildings, such as hotels, fire stations, and schools. Nationwide training camps sponsored by the United Brotherhood of Carpenters and Joiners of America now teach carpenters to build houses out of ICF.

Using ICFs costs 1 to 4 percent more than a bare bones insulated wood-frame house with no built-in fire protection, says Vera Novak, Technical Services Manager for the Insulating Concrete Form Association. Aside from the benefits of standing through disasters, ICF can save money in the long run because the thermal mass and insulation helps prevent heated and cooled air from escaping through the walls; it's also a primary building block in many LEED certified buildings and Energy Star rated homes.

Fire-resistant EF Blocks mean little, however, without flame-resistant roofing, siding and decking. "You can't just put on a regular wood roof and expect the wildfires to go around you," Novak says. "You must make sure that your roofing choices are equally fire resistant. That can be done with metal, concrete, and various types of tiles." Safe bets for siding are stucco, stone, and brick veneer. For the traditional look of wood, choose fire-resistant fiber cement clapboards or shingles.

The building where we spend our lives should be strong enough to handle natural disaster like flood, windstorms, earthquake and fire, etc. EF Block is the building material of choice to survive and thrive.

For more information on building with EF Block, visit www.EFBlock.com or call 480-830-5393.



Instructions to build a fireproof home

- 1 Use hybrid insulated concrete forms (h-ICFs) for the walls – EF Block. Filled with concrete, they are one of the most fire resistant materials around. According to This Old House, ICFs can withstand up to four hours of fire. EF Block is tested at 2200°F for 4-hours without losing structural integrity. It costs a bit more than normal wood-framed house, but lets out less cool or warm air so it will pay for itself. EF Block is an affordable hybrid ICF.
 - 2 Use fire-resistant roofing and siding. There are various types of metal roofs, noncombustible tile available, and slate is another option. You can use fiber cement, a stone veneer, stucco and brick for the siding. All are beautiful options that provide you with a noncombustible exterior. To add a deck use EF Block as support structure, cement, pressure treated wood or composite boards.
 - 3 If you don't use an integrated 87% post-consumer recycled expanded polystyrene insulation system like EF Block, insulate your house with cellulose insulation. This is an eco-friendly insulation made from recycled paper with fire-retardant additives. Blow it into place and it expands to fit snugly around obstacles.
 - 4 Install fire-resistant windows and doors. Use triple-pane windows or order custom-made fire-resistant windows that reflect heat. Consider adding shutters. Steel doors can be used as well as wood doors that are pressure-treated.
 - 5 Install a sprinkler system. Residential sprinkler systems are now available in a sleek, inconspicuous form. They will extinguish small fires inside your house and curtail large fires until the fire department can arrive. They also should save you on insurance costs.
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