Alberta Sides with Safety

For decades, vinyl siding has been used more than any other cladding in Alberta because it delivers beauty, durability, curb appeal and safety at an affordable cost.

Safe homes use fire-safe claddings, which include vinyl siding. It is composed mainly of polyvinyl chloride, more commonly known as vinyl or PVC, and it is inherently flame-retardant. Due to its chlorine base, PVC does not ignite, even from another flame, until it reaches approximately 730°F (387°C).

Recent changes to the National Building Code have created requirements to make homes even safer by specifying the use of vinyl siding with gypsum board sheathing in higher-density developments. Over the past few years, the National Research Council of Canada agreed that vinyl siding is a safe cladding and does not contribute to the growth of residential fires.

A member of the Alberta fire service commented on the fire safety of vinyl siding saying, "As an investigator, I have known for a long time that vinyl siding is not the contributing factor in building to building [fire] spread."

Harder to Ignite, Easier to Extinguish

All organic materials (that is, anything containing carbon) will ignite. But the higher the temperature a material has to reach before it flames, the safer it is.

PVC won't ignite, even from another flame, until it reaches about 730°F (387°C) and won't self-ignite until about 850°F (454°C). Those ignition temperatures are significantly higher than common framing lumber, which ignites from a flame at 500°F (260°C) and self-ignites at 770°F (410°C).

Also, *ASTM D2863* tests show that rigid PVC's high Limiting Oxygen Index means that it needs unusually high amounts of oxygen to burn and stay burning. Rigid PVC (vinyl siding) will not independently sustain combustion in air with a normal concentration of oxygen (about 21%) – so it extinguishes more easily. >>>

A member of the Canadian High Intensity Residential Fires (HIRF) Working Group says, "As a sitting member of the HIRF, I am very familiar with the properties of vinyl siding and the limited direct role it has during a fire."

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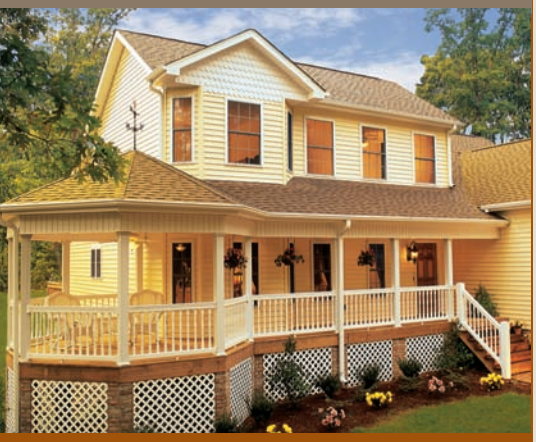
DID YOU KNOW?

Most home structure fires originate in the interior of the home. Only 4 in 100 house fires start on the outside of the structure and fewer than 2 of 100 house fires originate with the exterior wall surface.

— National Fire Protection Association, Home Structures Fires, February 2007

Independent Sources Side with Vinyl



- **The National Fire Protection Association's National Electrical Code recognizes the strong fire-safe characteristics of vinyl through its approved use as a residential wiring insulator. Millions of homes have been wired using safe vinyl-sheathed electrical systems for decades.[1]**
- **Underwriters Laboratories, Inc. (UL), includes certain vinyl siding as accepted products in fire-resistive construction.[2]**
- ***ASTM D2863* tests prove that rigid PVC's high Limiting Oxygen Index means that it takes unusually high levels of oxygen to burn and stay burning.**
- ***ASTM E162* tests indicate that PVC is among the materials with the lowest radiant panel index, which means it doesn't release a lot of energy when it burns.**

The Facts About Residential Fires

The manufacturers of vinyl siding are committed to keeping their products a low fire risk. The facts show that exterior cladding is involved in only a fraction of all residential fires. Indeed, most house fires start on the insides of homes and are contained within their structures of origin.

The National Fire Protection Association's (NFPA) February 2007 report, *Home Structures Fires*,[3] shows that fewer than 3% of all fires go beyond the structure of origin, and fewer than 2% of all home fires' source of origin is related to the exterior wall surface. In fact, only 4% of all residential fires start on the outside of the structure, but do not necessarily originate with the exterior cladding. The report does not cite any exterior wall coverings (including vinyl siding, brick and stucco) as the cause of residential fires.

What's the makeup of your cladding material? Vinyl siding features a chlorine base, making it inherently slow to ignite and flame retardant.

Slows Flames from Spreading

Results of *ASTM E162-06* test, Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source, show PVC as one of the materials with the lowest radiant panel index – meaning it doesn't release a lot of energy when it burns and will not readily spread flames on its own.

Vinyl siding does not exhibit sustained flaming when tested in accordance with NFPA 268 Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source.

When any organic material burns, it releases smoke that contains many different combustion products – mainly gases, many of which are toxic. There is no research to substantiate claims that vinyl materials release unusually toxic combustion products.[4]

To learn more about how vinyl siding can help you side with safety – and do it beautifully – visit **www.vinylsiding.org.**

[1]63. 22005 National Electrical Code, NFPA 70, Article 334. [2]Underwriters Laboratories, Inc. (Canadian Applications) (UL), includes certain vinyl siding as accepted products in fire-resistive construction. [3]National Fire Protection Association Fire Analysis and Research Division, Home Structures Fires, February 2007. [4]PVC in Fires, The British Plastics Federation, April 1996.

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For more information on why Canada Sides with Vinyl, visit www.vinylsiding.org.