

# vinyl solutions

## **Fire and Vinyl Fence/Decking**

*Because polyvinyl chloride (PVC) is so widely used as a building material, its behaviour in fire conditions has been the subject of extensive study.*

*All fence and decking must, of course, conform to all appropriate building and fire codes. But, vinyl as a building material exhibits especially good fire performance characteristics because of its unique chemical makeup.*

### **Not just any plastic**

*There are many kinds of plastics, and not all plastics are vinyls. Vinyl fence and decking are constructed of rigid PVC.*

### **PVC will not support its own combustion**

*All vinyl products are inherently flame retardant. Rigid PVC is even more so. It will burn, but it will not support its own combustion. If the source of the flame is removed, rigid vinyl will cease to burn.*

### **Difficult to ignite**

*Rigid PVC products are actually quite difficult to ignite, and will not ignite without the presence of other already-burning organic materials like wood, fabric or rubber. In a fire, rigid PVC products may soften, but will resist actually burning.*

*Rigid PVC's ignition temperature (736°F) is nearly twice the ignition point of Southern Pine or Douglas Fir. Its auto-ignition temperature – no flame present – is rated at 849°F.*

*Rigid PVC's peak rate of heat release, an important property in determining fire performance, is low by comparison with other materials. So, when rigid PVC does burn, **it does not release enough heat to support its own combustion**. When the source of the flame is removed or extinguished, rigid PVC can no longer burn.*

### **Comparatively low smoke volumes and toxicity**

*The smoke from all burning materials is toxic, with carbon monoxide being the primary toxin. Research shows that the toxicity of smoke from burning rigid PVC is comparable to that released by other organic material, and the amount of carbon monoxide generated is often far less than that from other materials. And since, as we have seen, rigid PVC is difficult to ignite and resists sustained burning, it is likely to produce less toxic hazards than other burning materials.*

*SOURCE: The Vinyl Institute*