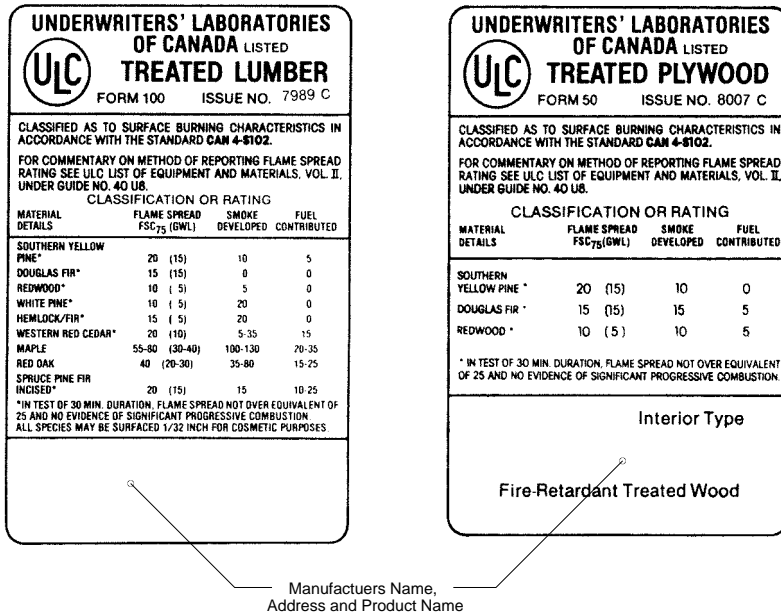


Figure 9.11
Panel Markings
for Fire-
Retardant
Treated
Lumber and
Plywood



The fire-retardant treatment of wood does not generally interfere with the adhesion of decorative paint coatings unless the treated wood has an increased moisture content. The finish characteristics of particular products should be discussed with the manufacturers of the treated wood.

In the United States, where the use of FRTW products has been extensive, the combination of temperature, humidity, and certain fire-retardant chemical formulation has led to deterioration of the products in certain climatic zones, particularly in plywood used in roof assemblies.

This problem has been specific to certain chemical formulations. Some of the latest generation fire-retardant chemicals and processes have been formulated to prevent this degradation from taking place while continuing to meet the fire-safety requirements of the building codes. In selecting FRT wood products, the designer should review the documented performance of those products under consideration.

Fire-Retardant Coatings

In addition to chemical impregnation by pressure-treating, the burning characteristics of wood products can be reduced by applying specially formulated coatings to wood surfaces. These coatings, are generally used for architectural woodwork applications where appearance is important.

Fire-retardant coatings are available in clear and white finishes. Where a solid colour finish is required, one or two coats of alkyd paint can be applied over the clear or white fire-retardant coating with only a small increase in the flame-spread rating.

The reaction of these coatings to fire and the actual mechanism of protection varies according to the composition of the coating. Some of the basic mechanisms of protection are as follows:

- Insulation: thick coatings insulate the treated material against high temperatures.