# Working Paper 120

**C I N T R A F O R**

# Japanese F-4Star Formaldehyde Rating Process for Value-Added Wood Products

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**Executive Summary**

After the Kobe earthquake in 1995, the Japanese Government introduced a series of changes to improve the integrity of new homes. Part of the changes included a rating system designed to indicate the potential for formaldehyde off-gassing by a variety of primary and value-added wood products. Excessive off-gassing of formaldehyde has been identified as a contributor to a phenomenon known as “Sick House Syndrome” that has resulted in a large number of home owners having to leave their houses. Referred to as the F Four Star system (F\*\*\*\*), the program was designed to cover much more than interior air quality and was not targeted at any particular product or building system. However, it is the interior air quality provision that concerns North American firms looking to export laminated products into Japan.

Products covered by the F\*\*\*\* regulation include:

* kitchen cabinets,
* bathroom cabinets,
* finished wood flooring,
* engineered wood flooring,
* wooden doors,
* wall and ceiling paneling,
* fixed shelving in cabinets,
* wooden stair treads and risers,
* wooden countertops and
* edge-glued panels.

The regulation does not apply to the following products:

* lineal wood moulding and millwork,
* door and window casings,
* wooden windows,
* wooden furniture,
* removable wood shelving,
* wooden stair railings, banisters and stringers,
* unfinished solid wood flooring and
* finger-jointed lumber.

There are three ways to ensure that wood products have been approved for sale in Japan:

* the product is on the exempt list shown above;
* use only raw materials in a product that are rated F\*\*\*\*; or
* submit a product for Ministerial Approval in Japan after testing it in the US.

Of the two methods related to products that are not listed as being exempt, using F\*\*\*\* raw materials in the manufacture of a product is the easiest and cheapest route for value-added manufacturers to follow. Obtaining Ministerial Approval can cost up to US$5,000.

Value-added wood products manufacturers should ensure they comply with the provisions of this regulation to protect and maintain market access.