

Recycled Wood Could Pose a Hazard

A playground surface should not pose hidden dangers to Children. Crushed wood has become popular material for playground surfacing based on the excellent shock absorbing properties and reputation of many of the original systems in the market. Traditionally the raw material utilized has not been wood that has already served another purpose or processed for another purpose. Wood that has not been subject to industrial processing has not had its cell structure altered and will retain most of the original ability to retain moisture and therefore pliability of the natural wood.

Wood that is recycled generally finds its origins in the construction industry as skids and waste or the furniture industry, where off cuts of the kiln dried lumber is shredded. Both of these sources can pose a hazard to the user. Construction waste can often be contaminated with paints and other chemicals, some of which can be clear and colourless. Wood from the furniture industry will have been processed through kiln drying and cut into dimensional pieces to produce a product best suited to the application.

The problem with this wood is that it can split easily and can produce very sharp edges. Wood systems when tested according to the procedure in ASTM F1292 demonstrate compliance up to 16' falls. This test only measures impact absorption. A fall from these heights onto kiln-dried scrap with sharp edges could well puncture skin. The CSA Z614-98 standard requires that the playground surface shall not contain "sharps". It is the responsibility of the supplier at the time of supply and the purchaser as part of a maintenance program to determine the location and remove any sharp materials from the playground.

With recycled construction lumber, the concern is not only sharps, but also the potential for toxic substances. The most likely chemical used in the construction will be latex-based materials. Latex allergies have become very prominent in the past few years, especially in areas of handicapped accessibility. Latex in the wood system could cause an allergic reaction that would not have an obvious source to the user. Some construction sites and storage facilities spray pesticides, insecticides and herbicides, which are clear and colourless, as a maintenance measure. Should a child place this wood in their mouths at the playground there could be a toxic reaction that would be difficult to treat.

Since the playground is designed as a recreational and social setting it should not harbour any hidden hazards from unknown sources. The specification writer can eliminate this concern by stating in the buying specification that wood systems from recycled wood will not be acceptable for the playground under consideration.