EXTRACTIVE BLEEDING & TANNIN STAINING in Wood & Wood Products

All species of wood are composed of lignin, cellulose, hemicelluloses and small amounts of organic and inorganic compounds called extraneous or trace material. The inorganic materials are trace minerals which account for an extremely small percentage of the weight of wood and are not soluble in water or other solvents. The organic materials are polyphenolics (tannins), essential oils, fats, waxes, starch, gums and pitch. These materials are the extractives as they can be removed, with water or solvents, without changing the basic structure of the wood. The amounts of extractives vary greatly in the different species of wood and they play a large part in the characteristics and properties of the wood.

Activated by water or moisture, extractives can migrate to the surface of the wood and can actually be carried through primer and paint causing discoloration on the surface. Asia Building Materials Limited wood products are factory primed with high quality exterior alkyd oil primer as oil based primers are a good defense against extractive bleeding and staining.

Even with proper implementation of all recommended applications, good products and proper procedures, extractive bleed can still occur, even at a later time – especially on new installations. Neither oil nor latex topcoats are able to always completely stop this problem.

Unsightly as they may be, these surface stains do not harm the paint or the wood substrate. EXTRACTIVE BLEEDING IS NOT A WOOD, MANUFACTURING OR FINISH/PAINT DEFECT. In some cases, rain will actually wash the stains off the surface. However, if rain does not clean the surface, a mixture of 10% Oxalic and 90% water (or a commercially available product) should be used. Always follow manufacturer’s application and safety instructions. Efforts to remedy the staining problem should be taken soon after the staining appears because, over time, sunlight can cause polymerization of the minerals in the stain and make removal more difficult.

Since water or moisture is always the cause of extractive bleeding (and most paint adhesion failure), the source of the moisture must be located and removed in order to prevent re-occurrence.