

TECHNICAL BULLETIN

Surfactant Leaching

Surfactant leaching, which is also known as exudate staining, is the concentration of water-soluble ingredients on the surface of a latex paint. It may appear as tan or brown areas and can sometimes be glossy, soapy, or sticky. It can occur with any exterior latex house paint when certain conditions exist. Specifically, paints applied under relatively cool and moist conditions, which are then followed by dropping temperatures, increased humidity, formation of dew, or the condensation of mist, may draw the water solubles to the surface before the paint has adequately formed a film that would otherwise retard this action.

All latex paints are made with some water-soluble ingredients such as dispersants, wetting agents, certain solvents, and some coalescents. All of these eventually come out of the paint film upon exposure to moisture. Conditions can be such that a proportionally large amount of these water-soluble ingredients are brought to the surface at one time. If left there in relatively high concentration, stains can appear.

In many cases, the stain can be removed easily with water. However, when an alkyd-modified paint has thoroughly dried, the discoloration may not be readily removable with water. Many times, a month's exposure to the elements generally results in the disappearance of the discoloration. For this reason, do not take immediate action to have the problem area repainted. There is a chance that repainting the surface, while water-soluble ingredients are concentrated on the surface, can lead to excessive surfactant leaching on the new paint and possibly result in poor adhesion of the new topcoat. We recommend waiting at least three to six months to allow "self-correction" of the problem.

While the tendency for surfactant leaching with exterior latex paint does exist, it really has not been a major problem. Weather conditions have to be just right, particularly at the time of application and during the drying phase, to result in noticeable water-soluble

accumulation on the surface. While an unusually frequent incidence of heavy dew in the summer can aggravate the problem, it does not generally occur often. When it does, it is frequently overlooked because of the transient nature of the discoloration. Surfactant does not adversely affect the durability of the paint coating.

For more information on surfactant leaching, contact your Diamond Vogel representative.