



U. S. FOREST SERVICE
RESEARCH NOTE

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WOOD FINISHING:
**TEMPERATURE BLISTERING
OF HOUSE PAINTS**

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What Is Temperature Blistering

Paint blisters are bubble-like swellings that occur on the surface of paint film. They can be temperature blisters, moisture blisters, or glossy-back blisters. Their causes and cures are not the same.

Temperature blisters do not contain water as do moisture blisters. Glossy-back blisters, as their name implies, have a glossy material on their backs; temperature blisters do not. Temperature blisters occur within a few hours or 1 or 2 days after painting, and, only in the last coat of paint; glossy-back blisters occur after a longer period and between layers of old paint.

Causes

Temperature blistering is usually caused by pressure that results when liquid thinners in the fresh paint change to vapors. If a thin dry skin has formed on the outer surface of the fresh paint film, the vapors are trapped in the film. A rapid rise in temperature, as when the direct rays of the sun fall on freshly painted siding, will cause the vapors to expand and produce blisters.

Paints of a dark color absorb more heat; thus they are more subject to temperature blistering than white paints. Thick coats are more likely to blister than thin coats. Painting in early spring or late fall at relatively low temperatures when the paint is quite viscous frequently produces a thick coat of paint.

Avoiding Temperature Blistering

Paint should not be applied to a surface that is shortly to become warmer. "Follow the sun around the house," is wise procedure. Thus the north side of the building should be painted early in the morning, the east side late in the morning, the south side well after noon, and the west side later in the afternoon. When painting in cold weather, apply the paint as thin as possible,

First Aid for Blisters

But what if blistering still occurs? What can you do? About the only remedy for surfaces with temperature blisters is--let the paint dry for a few days, scrape off the blisters (by this time they will probably have collapsed), smooth the edges with sandpaper, and spot paint the area.

