

## get 'em off!

Everyone knows that it is a complete waste of time painting over an unsound surface but there are instances where picking what it is or is not sound is sometimes not obvious.

The very application of a new two or three coat paint system itself adds new stresses on a surface. These new stresses can be the 'straw that broke the camel's back' causing catastrophic failure to a system which, while appearing sound, had incipient weaknesses.

Although not totally confined to this area, older timber systems, originally primed with oil or alkyd based primers, typify this problem. The nature of polyunsaturated oils and their drying mechanisms are such that continued long term reactions occur, which lead to embrittlement and shrinkage. While this phenomenon occurs with all the polyunsaturated drying oils, some oils are more prone than others. Linseed oil is one of the worst and most of us are familiar with new, plastic linseed oil putties aging into rock-hard materials with no flexibility or extensibility.

There are hundreds and hundreds of timber structures around the country, which at some stage of their decoration or re-decoration, have had an oil or alkyd primer included as part of their system. It may take up to 50 years, but these will eventually embrittle and weaken to the stage that they are no longer a viable foundation for a new system.

Burning off or stripping back to bare timber used to be a typical specification or practice in the past. Because of current costs, however, such a step is often only used when it is obviously needed.

Nothing is more frustrating or wasteful than to fully repaint a structure which appears sound, only to find that after a few weeks or months, the added stress of the new system has caused the tottering, failing old primer to 'give up the ghost'. Flaking is a totally unacceptable way of paint failing and total removal of the old paint now becomes obvious.

The cost of removal, which was hoped to be avoided, now comes on top of the cost of the 'failed' new repaint. People get angry! From the owner's point of view, everything was fine until your paint/specification was used, so the fault appears obvious.

It is clear that a full repaint is an expensive test procedure to determine whether full paint removal is warranted!

Most fine print (and sometimes even in bold) from paint manufacturers does foresee this problem and recommends testing the adhesion and cohesion of an existing paint system using an adhesive tape. Typically the recommendation is to thoroughly clean a target area, press on an adhesive tape; pull sharply at 90° to the surface and, if any paint is removed, total system removal is recommended in that area.

Weaknesses of the test include degree of cleaning; pressure applied to the back of the tape and quality of the tape (your scribe has been sucked into buying some cheap adhesive tapes that obviously benchmarked their products against Post-it notes). The test still remains useful however and can be refined by scoring the test area, using a very sharp blade, with a very narrow V shape. If the tape is applied, and pulled off, to include the finest part of the V, travelling up the V, a clearer result is obtained.

At the very least all the Northern exposed aspects and all window sills should be tested in this manner.

It cannot be said that these problems are totally historical. While acrylic chemistry is generally not prone to long term embrittlement, acrylics have not yet been generally accepted for pre-priming of timber. Although a lot of work is going on in this area, it predominantly remains the domain of alkyds. Given also that these are often designed for ease of use on the painting line (rather than for long term flexibility) it would seem that the 'blow torch to the house fronts' must be factored into specifications for some years to come.