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## **CIRCLE OR HALO DEFORMATION OVER SCREWS**

We have observed that a circle, or Halo effect, can develop around the head of screws in finish painted drywall surfaces on jobsites that are subjected to high moisture and/or cold conditions and/or poor ventilation. At first, this issue is often mistaken to be the shrinkage of the joint compound used for fastener concealment, however, many subcontractors have become frustrated when they recoat the screws and the problem persists.

As a service to our customers, Westpac has investigated the cause of this phenomenon and found that after carefully removing the finishing compounds over these areas it became apparent that **the paper around the screw head in these halo locations has expanded above the screw head and the plane of the board.** This is explained as follows; when a screw is set into the drywall, the screw twists as it goes in. This twisting action breaks and disturbs the face paper of the drywall. When primer and paint are subsequently applied, particularly glossy type paints, the moisture from the primer and paint rewet the joint compound products, then the paint surface dries and encapsulates this moisture underneath. That moisture then sits on the screw locations and eventually leads to the paper around the screw swelling and creating the halo effect. The drywall tape joints absorb moisture in a similar manner, which often leads to the drywall tape swelling and or beading because it is staying wet for so long under the paint. As stated above, this issue typically occurs only when the finished drywall is subjected to high moisture and/or cold temperatures and/or poor ventilation for extended periods of time. (Note: there is insufficient evidence that one brand or type of wallboard is more susceptible to this expansion than others).

As a preventative measure, heat and ventilation will help products dry quicker to mitigate these issues when it gets cold out. Also, the use of flat type paint is beneficial, as it does not film as much as gloss type paints and is more breathable to allow moisture to dry out.

If you already have this issue, in many cases the application of heat and proper ventilation will allow the paper to contract and the problem may disappear. After painting, however, the expansion may be at least partially sealed and may not entirely contract, therefore these locations will need additional cosmetic repair.

There are many other industry papers written on Nail and Screw Pops, which is a separate matter not discussed here.