

Technical Note #3- Coating Rejection

Rejection, commonly known, as Silicon Effect is a pullback of a coating applied to a substrate. Rejection is caused by the presence of contaminants, either in patches, or all over the floor surface. The most common contaminates which can cause a timber floor finish to fail are

1. Timber extraction (resin, wax, oil)
2. Aerosol sprays
3. Food spillage
4. Silicones
5. Contaminated equipment
6. Concrete Curing Compounds
7. Floor cleaning products

Unfortunately, in most cases it is not possible to predict rejection on a floor prior to the coating application. Signs of rejection normally occur after application of the first or second coat during the initial drying process and evaporation of solvents. A contamination may be picked up in an isolated spot on the floor during the sanding process and could be spread all over the floor surface. The chemistry of rejection involves the surface tension difference between the coating and the substrate otherwise the coating cannot wet and pulls back from the surface.

Flow additives may be used but each issue needs to be dealt with differently.

It is better to throw away equipment like sandpaper, screenbacks, or rollers if they were used on a problem floor as contaminants may be transferred to following jobs. Silicones can be a serious problem, therefore always check if such materials were used on or near the floor.

The removal of contaminates from the floor prior to the coating application is critically important. Even when a floor has been cleaned and is free of rejection, a high concentration of certain contaminants remaining on the floor may weaken the bond between the coats and later cause delamination.