

Toby Technical

Bulletin 18

Rejection

Rejection, commonly known as 'Silicone 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 contaminants which can cause a timber floor finish to fail are:

- timber extraction (resin, wax, oil)
- aerosol sprays
- food spillage • silicones
- contaminated equipment

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 the solvents. A contaminant may be picked up in an isolated spot on the floor during the sanding process and could be spread all over the timber or cork surface.

The chemistry of rejection involves the surface tension difference between the coating and the substrate. The surface tension of the applied coating must be equal or lower than the surface tension of the substrate otherwise the coating cannot wet and pulls back from the surface.

Toby Flo Add is a specially designed additive to reduce the surface tension of all Toby Polyurethane cork and timber finishes. Generally an addition of less than 0.5% (5ml per litre) is sufficient to overcome rejection problems.

When **Toby Flo Add** is used in a coating, the next applied coating should also contain at least the same quantity of Flo Add because of the reduced surface tension.

Unlike other additives including 'silicone drops', **Toby Flo Add** does not cause any undesired side effects like foaming, adhesion problems or cratering if used at no more than the recommended maximum addition of 1 %.

Always properly clean old floors in order to remove contaminants including grease, oil, wax etc. before the sanding process is started. **Toby Polyclean** in warm water or **Toby Reducer Thinners** on problem floors will do the job in most cases. Plenty of clean rags should be used when cleaning the floor to ensure that contaminants are removed and not spread all over the surface.

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 contaminants 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.

Toby Flo Add is recommended as an anti-rejection additive for **Toby Unithane Gloss, Semi-Gloss, Satin** and **Matt** as well as for **Toby Lustapol**.

Toby Flo-Add is not recommended for **Toby Hi-Solids Finish, Toby Tung Oil Seal** or **Toby Oil Modified Urethane**.

For further technical advice call our 7 Day a Week Technical Hotline on 1800 812 864.

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