

Test: Coating Discoloration and Degradation

Purpose:

To evaluate coating discoloration and degradation over time of SCHULTE, Lee/Rowan, and Closet Maid wire shelving.

Method:

Samples of wire shelving installed in home applications for a period of 10-12 years were located and documented. The shelves were removed and shipped to the lab for evaluation. They were then compared to new shelving from the same manufacturer.

Results:

Discoloration - Closet Maid shelf had moderate yellowing. SCHULTE and Lee/Rowan shelf had slight yellowing.

Coating Degradation - Closet Maid shelving showed heavy coating degradation. The coating was sticky which attracted dust and dirt to the shelves. SCHULTE and Lee/Rowan had no noticeable coating degradation.

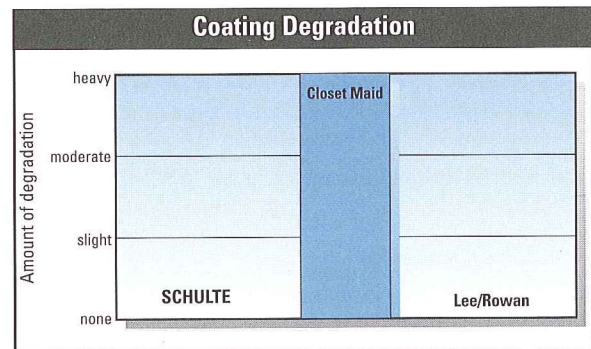
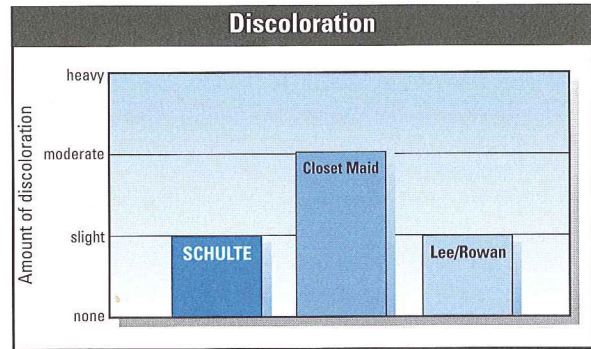
Observations/Comments:

We would offer the following explanation on the difference between the vinyl that Closet Maid uses and the epoxy hybrid that SCHULTE and Lee/Rowan uses.

Vinyl is a thermo plastic. This means that it does not cross-link when processed, and it is not chemically locked. This allows plasticizer migration, meaning that one of the elements (a plasticizer) moves to the surface over time which causes it to be sticky.

Epoxy hybrids are thermo set. This means that when it is cured the epoxy is chemically cross-linked. This is an irreversible change that locks in the desired properties of the coating.

Hybrid epoxies such as SCHULTE uses, cost more than vinyls. Also, the thick coating of vinyl covers up smaller wires and rods used by Closet Maid.



Slight - discoloration/degradation only noticeable when compared to new or non-discolored/non-degraded shelves.

Moderate - noticeable discoloration/degradation of shelf without need of comparison.

Heavy - significant discoloration/degradation of shelf without need of comparison.