

1. The carpet has worn on the bottom three stair steps where it forms abrasion points and a pivot area when negotiating the stairs onto and off the hall.
2. The wear rate is even between all coloured spools.
3. There is evidence of latex which has penetrated through onto the base of the surface loops and inbetween the weave in places. It is possible is a hard prefix coat was used before applying the latex that this would contribute towards the wear but the latex backing is soft and would not cause increased wear.
4. Close examination under 200x magnification did not see any direct evidence of increased wear where latex was on the back of the surface pile.
5. The weaving of the carpet is even in both directions and the pile is correctly installed in this herringbone pattern flatweave profile..
6. Away from pivot areas the wear rate in areas subject to heaviest traffic flow; where the carpet is laid flat, is very small and represents a very small loss of pile fibre in those areas.
7. The wear rate in areas subject to pivot or rubbing is high because a very small surface area is subject to extremely high degrees of friction and as a result of this the carpet has worn more rapidly in those spots.
8. The use of outdoor shoes or trainers will greatly accelerate the rate of wear on the carpet due to increased friction.
9. The general wear on stair nosings is dependent upon:-
 - a. The condition and radius of the stair nosings
 - b. The type and quality of the underlay
 - c. The level of usage from local foot traffic.
 - d. The degree of friction exerted underfoot; particularly when pivot action is present.
 - e. The density of the carpet
 - f. The type and quality of the materials used in the construction - particularly the pile.

It is recommended (BS: 5325 that a stair carpet be fitted to allow for periodic movement to equalise the wear present on the nosings; or sufficient pieces retained for that purpose therein.

10. The carpet has not been fitted to allow for movement so it cannot be moved to spread the wear. Given the shape of the winders this would not be the case so sufficient pieces for this purpose are normally retained.
11. Carpet samples were not available for testing

Conclusion:

In our opinion there is no evidence of any actual faults in the manufacture of the carpet. The wear to the stairs is due to a combination of none movement (not really possible in this case) and local incidental usage

It is important to spread the wear where possible because the stairs are susceptible to concentrated pivot and rubbing which can lead to a more rapid wear rate.

Comments:

Replacing the bottom three steps would resolve the present issue but sufficient for further replacements in the future would be wise.

For T.C.S.



K.E. Wetherell