

How to prevent soiling

1. Barrier Matting - Prevention is better than cure!

Why use barrier matting - All types of flooring get dirty although some show soiling more than others. Over 90% of soil comes in on the soles of shoes, heavy ridged soles such as boots and trainers in particular tend to hold grit and greasy particles of soil inside the ridges. These particles will eventually become detached from the soles onto the surface of the carpet and work their way deep into the pile. Brintons wool rich carpets are particularly good at soil hiding but even though the carpet may not look dirty, the gritty particles if not removed will grind against the fibres at every footfall causing premature wear and loss of appearance retention. It is obviously sensible therefore to remove as many as possible of these particles before they can be transferred to the carpet. Barrier matting at entrance points into the buildings at walk on / walk off points and at lift access points are a very efficient method of retaining soil before it can reach the main body of the carpet.

Choosing the correct type of matting

Different types of barrier matting perform different functions. Heavy duty metal bar and brush types will, when used correctly, wipe inside the ridges of shoe soles and heels retaining the larger sized particles which drop into a well under the matting. These mats are usually placed directly outside the building in the doorways. They are generally composed of one or more of the following materials:

1. Metal grilles
2. Rubber ribs or links
3. Coir
4. Looped vinyl yarns
5. Carpet with stiff nylon brushes in the pile

Medium duty mats are usually composed of textile materials, highly absorbent to attract moisture yet rough enough to remove greasy particles as the shoes are wiped. These mats are generally fitted just inside the building between the door and the carpet special types of highly absorbent mats are also available which can be loose laid on top of the carpet during wet weather conditions to prevent moisture damage. Barrier mats can be made incorporating pictures and messages in many different colour options. There is usually a design to suit every type of installation. We would always recommend contacting the manufacturers for their recommendations as to the correct type for your requirements.

Choosing the correct size of matting

In this respect a compromise sometimes needs to be reached between providing sufficient matting to fulfil soil removal without spoiling the overriding importance of the "look" of the building. Most matting suppliers will recommend a minimum of 3 metres of matting. In our experience however designers are reluctant to incorporate this into their plans and 2 footfalls is usually allowed. It is important to remember that people seldom walk in a straight line through a door so a half circle of matting offers maximum protection at whatever angle the customer chooses to enter.

Cleaning barrier matting

Barrier matting can get dirty very quickly. Unless this soil is removed, the matting itself becomes a source of dirt to be tracked to all areas of the building. It is important that the daily cleaners of the building are made familiar with the cleaning requirements of the different types of matting fitted and that they ensure that the mats are inspected and vacuumed at least daily. More aggressive cleaning may be required such as hot water extraction and we would always advise that our customers contact the Manufacturers of the matting for detailed cleaning instructions as the requirements can vary considerably.

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Specialist barrier matting cleaning companies

Some suppliers of barrier matting also offer a regular cleaning service. Under this service there are usually three mats for every entrance. A mat in use, one clean and one "in the wash". The company calls on an agreed frequency to suit the conditions of the installation, replaces the soiled mat with a clean one, and takes the soiled one away to be thoroughly cleaned.

Suppliers of barrier matting

The following list of suppliers/cleaning companies is one which we have prepared from material presented to us by barrier mat manufacturers. Whilst it is not our intention to suggest that these are the only sources of supply, we have had good experience of these companies and are happy to pass on their literature to our customers if required:

- Bonar Floors (now combining Nuway and Coral Tufton) tel: 01773 744121
- PHS Mats tel: 02920 851000
- Rawson tel: 01924 382860
- Gradus tel: 01625 428922

2. Protective Finishes - The application, effect and risks of protective finishes

Staining is the result of a chemical reaction within the fibre itself where the tea, coffee, wine or other type of natural colourant is actually bonded into the fibre. Products can be applied to carpets to try and make them more stain resistant. Whilst some manufacturers do promote the use of 'anti stain finishes' on wool rich products our experience has shown that they are an unnecessary expense and can, in fact, inhibit the naturally good performance of the 80/20 wool nylon blend.

The terminology 'Anti-stain' can be used to describe a number of applications, it can therefore easily be misinterpreted. Brintons would like to offer the following clarification:

Anti-Soil

Relates to dry soiling only, these products contain a resinous chemical, typically organosilicate, which upon application and curing, form a thin film which prevent dirt from adhering to the fibre. They do not prevent liquid penetration and staining.

Brintons evaluation of these products on 80/20 wool/nylon have shown them to have insignificant benefit as the wool fibres themselves can naturally guard against dry soiling to the same level of performance.

Anti-Stain

Relates to protection against actual staining. These products work by chemically blocking dye sites on the fibre. A liquid will still penetrate the fibre but will not be able to form a permanent stain.

Brinton's evaluation of these products on 80/20 wool/nylon have shown them to have limited benefit. Wool fibres do not stain as readily as some synthetic fibres and when combined with effective stain removal this performance is greatly improved.

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Stain Repellent

Relates to protection for liquid penetration. These chemical applications are based on fluorocarbon chemistry. There are wide ranges of chemical variations within this broad group of chemicals. We are aware of a number of risks and misconceptions associated with the application of stain repellent finishes:

- A Treated carpet can resist stains as long as they are tackled immediately.
- Some anti-stain finishes may still contain the perfluorooctanyl chemistry which has been associated with persistent, bio cumulative and toxic effects.
- The application of anti-stain finishes is not permanent and will wear or wash off in use.
- During wear the fibre coating will break letting in stains. If spills have absorbed into the pile they will still require careful spot removal, which can be hindered by the water repellent nature of the treatment.
- Where treatments are used, we recommend that they are applied by properly trained operators, ideally pre-installation.
- A combination of over application and inefficient drying of a stain repellent finish can leave residues in the pile. These can subsequently leave a white and/or sticky residue. This then accelerates flattening and the attraction of dirt. Under these circumstances both the carpet appearance and performance will be compromised.

If, post manufacture, a stain repellent finish is applied we anticipate a greater risk of pile flattening in walk areas (tracking), accelerated soiling and permanent pile reversal. Brintons would not therefore accept any claims against our warranty for appearance retention or performance related issues.

3. Antimicrobial Treatments

Where carpet is to be used in a gymnasium or area near to saunas etc, there is sometimes a requirement for carpet treated with a sanitising and de-odorising product.

We do not offer this service ourselves but are happy to recommend a product called B125 Clensan, manufactured by Prochem. This product is available world wide from Prochem suppliers. The product is applied in situ, by spray application at the recommended dilution rates. The carpet must be allowed to dry thoroughly after application. A copy of the COSHH data sheet for this product is available. When the carpet is cleaned it may be necessary to re-apply the Clensan treatment. Care must be taken to ensure that only cleaning chemicals compatible with the Clensan product are used. We would always suggest that the manufacturers Prochem, are contacted for their advice on suitable and compatible cleaning products.

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Wool and wool-rich carpets

Cleaning and Maintenance

Brintons have gained considerable experience over many years of the use of our 80% wool /20% nylon carpets in different situations, both retail and contract. We are happy to confirm their resistance to soiling and ease of cleaning. We feel that it is a common misconception that wool rich and 80% wool / 20% nylon carpet is one of the most difficult types to maintain. Millions of square meters of our woven 80% wool /20% nylon carpet, sold into the heaviest of contract locations, have proved their resistance to soiling and ease of cleaning.

Although advances in the production of synthetic fibres have led to some improvements in their soil and stain resistance, the synthetic fibre industry is spending large sums of money, still striving to try and match the natural anti-soil, anti-stain and other performance qualities of wool.

Resistance to soiling

Work carried out by a German research institute on a series of comparable carpet constructions but with different pile fibres has shown that, when they were all treated with identical amounts of standard soil, wool carpets visually showed soil less than synthetic carpets. In addition they were easier to clean, and the carpet returned closer to its original appearance than any of the synthetic pile products.

The reasons for the wool fibres renowned ability to resist soil and release it easily are explained by the fibres unique structure and properties. The scaly surface scatters light and hides the soil much more effectively than even the latest generation of synthetics. The cleaning performance is a result of wool's ability to absorb water, causing the fibres to swell and release the soil more easily. During cleaning, nylon and other man made fibres absorb little water. When a carpet is cleaned by hot water extraction a nylon or polypropylene carpet allows the water to pass directly into the back of the carpet where it causes the most damage. Wool rich carpets retain the moisture in the pile of the carpet where it is readily sucked back into the waste disposal cylinder of the machine, reducing the propensity for shrinkage. For the same reasons spillages quickly fall through to the backing of non absorbent carpets from where they are difficult to remove.

The 80% wool/ 20% nylon blend of fibres pioneered by Brintons many years ago has been specially engineered to combine the natural outstanding performance of the wool fibre including anti-soil properties, with the higher abrasion resistance of premium nylon resulting in a blend with the optimum performance of both fibres. During production of our yarns, great care is taken to ensure that it is thoroughly washed to remove lubricants and other finishes used in manufacture. If these are left on the product, they will attract and hold soil. Many synthetic carpet manufacturers do not have this wash off process and leave the product liable to severe soiling problems. This is the reason why so many synthetic products are treated with anti-soil finishes to counteract this inherent soiling propensity.

Resistance to staining

Staining, as highlighted previously, is the result of a chemical reaction within the fibre itself where the tea, coffee, wine or other type of natural colourant is actually bonded into the fibre. It is interesting to note that nylon actually accepts colours more readily than wool fibres and, during dyeing, nylon dyes have to be retarded to slow down or limit the speed at which they dye the fibre. Nylon 6 products in particular are more prone to staining than nylon 66. In addition, when a spillage occurs on a man made carpet, it sinks through to the backing materials and, even though the surface pile appears cleaned, remnants of the spillage in the backing can wick their way back up into the pile causing rapid re-soiling. Wool is definitely a more forgiving fibre, a fact proven by their widespread use in the UK for the pub, restaurant and bar trade. In these areas wool is undoubtedly the preferred fibre.

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Stain removal

Even though wool rich pile fibres absorb more water and therefore more of the spillage than nylon carpets, we have not found the removal of spillages or resultant stains a problem. We have tested many different types of spillage/stain removal products on our carpets and have concluded that the best method (and also the simplest) is to use dilute shampoo solution and a wet suction vacuum cleaner. The spillage should be vacuumed away as much as possible and the area lightly sprayed with dilute shampoo solution or stain removing, trouble shooter spray. After working the solution into the pile, it should be removed as much as possible with the wet suction vacuum. The procedure needs to be repeated as often as required to dilute and avoid staining. Spillages which have been left to dry resulting in a stain can be sprayed with shampoo solution to dampen them, wet vacuumed and the procedure repeated as before.

Benefits when cleaning Brintons 80/20 Carpets

In our experience, Brintons 80/20 wool/nylon carpets have the following advantages over many synthetic products:

- They will not show soiling as quickly as a similar coloured synthetic product and normal day to day vacuuming will remove soil more easily.
- This means that periods between interim and intensive cleaning can be extended.
- When more intensive cleaning does become necessary the 80/20 will be easier to clean.
- When comparable 80/20 and synthetic carpets are cleaned it will be noticeable that the 80/20 will clean back to its original unused colour better than the synthetic product.

Protective Finishes on nylon

Products can be applied to nylon carpets to try and make them more stain resistant but they are not 100% effective and wear or wash off in use. Whilst some manufacturers do promote the use of antisoil finishes on wool rich products our experience has shown that they are an unnecessary expense and can, in fact, inhibit the naturally good performance of the 80/20 wool nylon blend. This is because the finishes are not permanent. During wear the fibre coating will break letting in soil and stains. When the carpet is cleaned the finish will then prevent the soil and stains from being removed. This will inevitably lead to differential soiling patterns, spoiling the good appearance of the product. It is for these reasons that although many other manufacturers now offer anti-stain treatments for wool and wool rich products, we at Brintons do not actively promote their use.

In summary

We believe that a correctly maintained 80/20 wool/nylon carpet, combined with barrier matting at entrance points, will ensure optimum performance and appearance over many years of use. A copy of our cleaning and maintenance manual can be obtained on request.

A statement from Brintons

Anti-stain Treatments - Wool rich carpets are inherently soil resistant, they have a natural ability to repel liquids and subsequently have a reduced tendency to stain. Therefore, they generally require less cleaning than many synthetic fibre carpets. Carefully selected and professionally applied treatments may resist stains as long as they are tackled immediately.

The use of inappropriate or poorly applied treatments will have a detrimental effect on the appearance and performance of our carpets. Therefore, we do not actively promote the application of treatments nor accept responsibility for any problems associated with their inappropriate use or poor application. In these circumstances our product guarantee will be void. If you have any questions about anti-stain treatments or would like further information please contact our Technical Services Department:

tel: +44 (0) 1562 635 446 or email: technical@brintons.co.uk