



MULTILAYER MODULAR FLOORING ASSOCIATION
VERBAND MEHRSCHICHTIG MODULARER FUSSBODENBELÄGE E.V.

Technical Bulletin

TM 3

**Cleaning and care
of multilayer, modular flooring (MMF)
in the commercial sector**

English version, last revised: 01/2018



1. Introduction.....	3
1.1. Scope.....	3
2. General.....	4
3. Definitions/determinations of terms.....	5
4. Recommended measures and value retention.....	7
4.1. Preventive measures.....	7
4.2. Post construction cleaning.....	7
4.3. Maintenance cleaning.....	8
4.4 Intermediate cleaning	8
4.5 Stain removing	8
4.6 Basic cleaning	9
4.7 Refreshing/rehabilitation (value retention)	9
5. Further notes	10
6. List of sources	11
7. Disclaimer of liability	12

1. Introduction

1.1. Scope

This guide on Cleaning and Care in the commercial sector deals **exclusively** with the **group of multilayer modular flooring (MMF)** – also termed as hybrid, multilayer, vinyl or design flooring.

The legal requirements applicable in the country of purchase have always to be complied with.

The cleaning and care recommendations for elastic flooring in this Guide are based on the current state of the cleaning technology as well as practical experiences. This brochure is to create clear definitions of cleaning method terms and associated cleaning procedures to be considered for value retention of elastic flooring. So, not only the terms are clearly defined, but the corresponding cleaning procedures are also assigned to the individual cleaning methods. This allows a common language between the stakeholders (publishers, those responsible for facility management, cleaning service providers, detergent and equipment manufacturers), facilitates consulting interviews with customers or flooring users.

2. General

The market offer for flooring is multifaceted as never before. New products are being increasingly developed and placed on the market. Even experts have difficulty in staying on top of all this and for end clients and users alike it is virtually impossible to know all current product names, materials or properties and classify them accordingly.

Which flooring has been laid?

While natural, artificial stone and textile flooring mostly are clearly identifiable as such, material-related differentiation and allocation with regard to natural wood, parquet, laminate and elastic flooring is getting pretty harder. – Especially if flooring has already been fitted and the individuals commissioned with cleaning and care do not have available supplementing information on the flooring.

The European MMFA Association(www.mmfa.eu) wants to provide necessary educational work for multilayer, modular flooring.

What is MMF flooring?

The rather young flooring group of **multilayer modular flooring (MMF)** includes flooring in single planks or single tiles which are joined to a floor area in so-called 'floating floor fitting' using a click connection (thus glue-free). Floating floor fitting means that flooring is being laid onto an underlay (possibly impact sound insulation) without fixed connecting link to the subfloor. Depending on which type of underlay is being selected, the overall system structure thickness is between 4 and 20 mm.

In individual cases, this type of laying needs to be clarified for specific object requirements with respect to hygiene, for example, in the health care industry.

Contemplating their surface materials and properties, MMF flooring does not entirely differ from other elastic flooring. Therefore, numerous instructions and directions for multilayer, modular flooring can be compared with the relevant notes and user guides for the elastic flooring product group.

Normally, hybrid or modular multilayer flooring (MMF) feature highest quality and durable surfaces which ensure the long life of such type of flooring – professional cleaning and care corresponding to use provided.

3. Definitions/determinations of terms

Multilayer, modular flooring (MMF)

Flooring acc. to EN 16511:2014 as well as other, semi-rigid flooring for floating floor fitting (e.g. 'LVT design floor coverings', etc.).

Modular

Elements supplied as single planks or single tiles with edges having been worked enabling the product to be joined to form a coherent, uniform flooring.

MMF product classes

The product range is enormous. MMFA currently distinguishes three different design types depending on the type of backing layer (based on wooden material or others).

MMFA Product Classes – Updated as of 1/2018

Multilayer modular floorings for floating installation...

Class 1: All products with wood-based substrates (≥ 65 % content of wood particles/fibres in the core) with polymer or cork surface layer (cork thickness > 2.5 mm).

Class 2: Polymer or polymer-composite substrate with polymer surface layer and/or lacquer.

Two sub-classes:

Class 2A: LVT click (EN10582 and EN 16511) - hot pressed and/or calendered.

Class 2B: all other polymer substrates (EPC and SPC).

(EPC: expanded polymer core and SPC: solid polymer core).

Class 3: All products not covered by class 1 or 2, or external standards.

Note: Class 3, for example, covers modules using a click system and textile surface or those on a mineral core.

Cleaning and care

Quite simply spoken, all methods cover the term 'Cleaning' by which dust or adherent soilings as well as applied care products are removed again. The term 'Care' is to be understood as actions undertaken to apply a protective or sacrificial layer onto the floor. The resulting care film can either be removed (of temporary nature) or remains permanent (not removable) on the floor covering surface.

Two-stage wet wiping method

The two-stage wiping method represents the classic wet wiping method. Using a cleaning textile in the first stage, as much cleaning fluid is applied to the floor to soften or remove adhering, water-bound dirt. In the second stage, the resulting dirt residues will be absorbed again with dry or strongly drained cleaning textiles. Using this method, the cleaning effect is

stronger than in a single-stage wet wiping. Besides the floor covering surface dries faster that way.

Post construction cleaning

The newly laid flooring needs to undergo post construction cleaning before use in order to removing residue and soiling caused by laying and construction. Normally, the floor layer would have to hand over the flooring clean swept (construction coarse cleaning). If heavy soiling cannot be removed by sweeping or vacuum cleaning, the floor needs to be wiped using an appropriate cleaning agent (construction fine cleaning).

Maintenance cleaning

Maintenance cleaning is understood as repetitive cleaning work at specified intervals during the utilisation phase. Maintenance cleaning serves removal of ongoing soilings and maintaining use-related requirements on flooring.

Intermediate cleaning

More intensive cleaning work beyond the scope of maintenance cleaning and which is carried out to requirements. Intermediate cleaning sets out to expanding the date of basic cleaning as far as possible. In this process, dirt accumulations need to be removed that cannot be removed during maintenance cleaning without removing applied care films. The surface should be enhanced in its appearance. Highly frequented areas should be adapted to the remaining surface in their overall appearance.

Basic cleaning

Basic cleaning serves to removing adhering soilings and worn, removable care films or other residues that impair the appearance of the surfaces. Basic cleaning is carried out as and when required.

Refreshing/value retention

Refreshing of flooring will become necessary once first signs of wear show or the floor covering surface seems to appear inhomogeneous. In the process, a care product is being applied all-over onto the surface using the wiping method. Depending on the floor covering surface condition, preventive initial care can take place within the scope of value retention protecting the floor covering surface against mechanical stress and facilitating subsequent maintenance cleaning. Such initial care requires post construction cleaning or basic cleaning.

Rehabilitation

A fully surfaced repair of the surface protection (method-dependent) being capable of rehabilitation is carried out within the scope of rehabilitation work using mechanical and chemical processes. With the repair work completed, surface protection will be intact again and the floor covering surface appearance is homogeneous and uniform. Rehabilitation is connected with significantly higher workload and time. Rehabilitation has to be performed by a certified specialist company.

4. Recommended measures and value retention

4.1. Preventive measures

A great deal of normal dirt ingress can be avoided by installing sufficiently dimensioned dirt locks in front of the entrances and, too, entry matting zones in the entrance areas and which all are included in the ongoing cleaning work.

Chairs with defective or missing slides or unsuitable chair castors destroy both the surface protection and the flooring and have therefore to be avoided. Deployment of suitable migration-free chair/furniture slides as well as chair/furniture castors (type W) is highly recommended (see: 4. General information).

In order to minimising the risk of moisture ingress in the seam areas of adjacent flooring elements in the case of multilayer modular flooring (MMF), any cleaning actions involving increased moisture or risk of ponding and standing moisture have to be avoided. The risk of penetrating moisture into the seam areas can be decreased by spraying on the cleaning agent using a pressure sprayer or similar and deploying suitable cleaning machines. It has to be ensured that not any moisture (by cleaning actions) can get between floor and underlay.

In mechanical cleaning, the devices and wheel loads have to be adapted to the type of construction.

4.2. Post construction cleaning

Construction coarse cleaning:

Construction coarse cleaning precedes construction fine cleaning. Dry, loose dirt is being removed by sweeping or vacuum cleaning.



Construction fine cleaning:

Use the recommended cleaner in the specified dilution within the scope of construction fine cleaning. Decrease concentration according to the degree of soiling in case of low construction soiling as appropriate. Clean the floor using well squeezed wipe covers in the 2-stage wiping method.

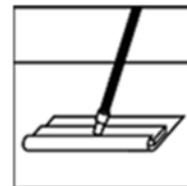


A single disc machine with red pad can alternatively be used in the spray cleaner method if removal of adhesive soiling cannot be eliminated in the wiping method. Mop directly afterwards with clear water. Generally avoid any ponding. If a neutral cleaner is being used within the scope of the spray cleaner method, a very effective cleaning result can thus be achieved. In this way, a compacted and thus heavy-duty care film is being generated at the same time when a floor-care product for damp mopping is used. This protects the floor against mechanical stress and also facilitates maintenance cleaning.



4.3. Maintenance cleaning

Loose surface dust and dirt is removed by wiping over the floor with a slightly damp mop. The cleaning power can be additionally enhanced by selecting special wipe covers (e.g. micro fibre). Alternatively, a vacuum cleaner in combination with a hard floor nozzle can be used for manual damp mopping.



Use the recommended maintenance cleaner in the specified dilution to remove dirt adhering to the floor and, depending on dirt accumulation, wipe the floor using a suitable, well squeezed mop in the 1-stage or 2-stage wiping method.



4.4 Intermediate cleaning

In case adherent soilings cannot be removed in the course of manual cleaning, mechanical cleaning is recommended using an aqueous dilution of the maintenance cleaner corresponding to the degree of soiling and, applying the cleaner procedure, running a single disc machine with red pad. This procedure is also suitable for regular intermediate cleaning.



4.5 Stain removing

Stubborn stains and dark rubber heel marks can be selectively removed using a suitable stain remover in connection with a cloth or scratch-free white pad. Mop directly afterwards with clear water.

It is important to removing the stains as soon as possible since certain types of stains settle into the flooring as they age and can then only be hardly or incompletely removed.

Use only stain removers that are recommended and adapted to the stain substance in question and never use solvents, nail polish removers or similar. These can damage the factory surface finish irreparably.

4.6 Basic cleaning

1. Spray the recommended basic cleaner on the floor in specified dilution (e.g. using a manual pressure sprayer) and leave to work in up to 5-10 minutes (product-dependent) depending on persistence of the residues to be removed. Absolutely avoid ponding in any case! *Note: the basic cleaner must not dry off. This may result in less adhesion of the coating/care film application in subsequently applied coatings.*



2. Afterward, scrub the flooring with a single disc machine and abrasive pad (e.g. green pad). Use a red pad instead of a green one in case the flooring is not intended to be worked in after basic cleaning. Rework structured surfaces with a scrubbing brush to remove adhering dirt in flooring recesses.



3. With full absorption of the dirt residues (e.g. with a spray extraction cleaner with wet extraction nozzle) completed, neutralise the flooring with clear and possibly warm water until all dirt and cleaning agent residues have been completely removed.



4.7 Refreshing/rehabilitation (value retention)

When first signs of wear should become apparent (e.g. micro scratches) or distinct signs of use are visible on the floor covering surface, refreshing or timely rehabilitation of the floor covering surface is necessary.

Depending on the conditions of use and object situation, refreshing using removable care products or rehabilitation using permanent seals can be advantageous as alternative.



Flooring and object specific initial care with removable care products or permanent sealing is recommended in order to achieving robustness and protective effect (e.g. against alcoholic disinfectants or staining substances) according to usage in object areas which are particularly exposed to wear, as well as reduction of dirt adhesion and relief of ongoing cleaning work. The risk of moisture ingress of adjacent flooring elements in the seam areas can also be minimised by adequate initial care or sealing.

Notes of the flooring manufacturers and the cleaning and care product manufacturers must be observed and adhered to due to the differences in the factory surface treatments!

5. Further notes

- After laying, appropriate **protective covers** should protect the flooring in areas which are still much frequented during the construction phase.
- One has to reckon with interactions or migrations when using tapes on flooring, therefore, the respective manufacturer has to confirm compatibility of the tapes in advance.
- **Chair, table and furniture feet** should be/have been equipped with suitable protective slides or underlays to avoiding any damage of the floor covering surface by furniture. You get these from the MMFA member companies for instance.
www.mmfa.eu
Preferably light-coloured, **migration-free furniture slides** should be preventively used.
- **Contact surfaces of chair and furniture slides** should lie flat and rounded on the edges.
- **Metal slides** can corrode in connection with moisture thus causing stains on the flooring.
- We recommend the use of special protective slides in educational institutions.
- Only use suitable **chair and furniture castors** acc. to DIN EN 12529 (type 'W' for soft). Chair castors as well as chair and furniture slides should be regularly checked and maintained.
- **Terracotta or clay flowerpots/tubs** can cause discolorations on the flooring. Please use suitable, migration-free coasters.
- Avoid **trapped moisture** under equipment pieces.
- **Coloured rubber**, India rubber or plastic slides and castors as well as dark car, bicycle or equipment tyres may possibly cause discolorations on the flooring. If possible, please use light-coloured, migration-free furniture slides, castors or tyres and heed the manufacturers' specifications.
- **Chemicals and other coloured substances** can result in changes to the surface depending on concentration and constituents and should therefore be immediately removed from the floor covering surface on contact.
- **High point loads** at little contact area may possibly result in irreversible indentations or damage. If necessary, use suitable and sufficiently dimensioned underlays for load distribution in case of high point loads.
- Walking on flooring with **stilettos or high heels** can result in damage to the floor covering surface.
- **Anti-slip and safe walking properties** of flooring is decisively influenced by dirt ingress, frequency of cleaning and the cleaning/care products used. Please only use cleaning/care products of one manufacturer which are compatible with one another.
- **Scouring powder, sanitary cleaners, acids or strong solvents** may possibly result in damage to floor covering surface and furnishings.
- **UV light** caused fading and colour changes on flooring can be prevented by using sufficiently dimensioned shading on windows and patio doors.

- Coloured wood and skin disinfectants as well as hair dyes or peroxide-containing bleaching agents may cause irreversible flooring discolorations. If there should be any uncertainty pertaining to using **chemical, dying substances or foodstuffs**, a durability test on an inconspicuous area of the flooring or on a non-installed piece of flooring should be carried out first of all.

Please also heed the respective notes of the flooring manufacturers and suppliers!

6. List of sources

BS EN 16511:2014 Loose-laid panels. Semi-rigid multilayer modular floor covering (MMF) panels with wear resistant top layer

Der Reinigungsprofi – Elastische Bodenbeläge, Martin Lutz, 2003, Lutz-Fachbücher, 72555 Metzingen.

FRT-Leitfaden „Reinigungsarten und –verfahren“, as of: October 2013, Europäische Forschungsgemeinschaft Reinigungs- und Hygienetechnologie e.V. Campus Fichtenhain 11, 47807 Krefeld

Pictograms of the cleaning procedures: A.I.S.E., Boulevard du Souverain 165, 1160 Brussels (<https://www.aise.eu/library/artwork/aise-institutional-industrial-application-pictograms.aspx>).

7. Disclaimer of liability

The recommendations from these Care Instructions serve as additional notes on the cleaning and care recommendations of the flooring and cleaning product manufacturers organised in the MMFA. These represent non-binding guidelines and do not claim to be complete. All of the information is correct to the best of our knowledge and belief. No entitlement to warranty claims can be derived from them.

The MMF flooring manufacturer/supplier has to be consulted object-related in case of doubt.

Note

The cleaning agents/stain removers recommended in this leaflet are also available where you purchased the MMF flooring. Remember: Next tenants or other users should also know this leaflet so that they can benefit from the excellent properties and retain the value of MMF floors.

The leaflet 'Cleaning and care of multilayer, modular flooring (MMF) in the commercial sector' is available in the Internet as PDF file under www.mmfa.eu for free download.

MMFA - MULTILAYER MODULAR FLOORING ASSOCIATION

(Verband mehrschichtig modularer Fußbodenbeläge e.V.)

Mittelstr. 50

33602 Bielefeld

Deutschland

Phone: +49 521 96533-35

Fax: +49 521 96533-11

E-Mail: info@mmfa.eu

Web: www.mmfa.eu

Note: The provisions and figures contained in this technical bulletin do not in any way lay claim to completeness. They reflect as far as reasonably possible the current state of the art. They are meant to serve as nonbinding guidelines in conjunction with the producer's instructions which apply specifically to the product in question. Warranty claims cannot be derived from the provisions of this text. If any doubt exists as to any of the provisions contained herein, the manufacturer/supplier of the respective MMF product should be consulted.