

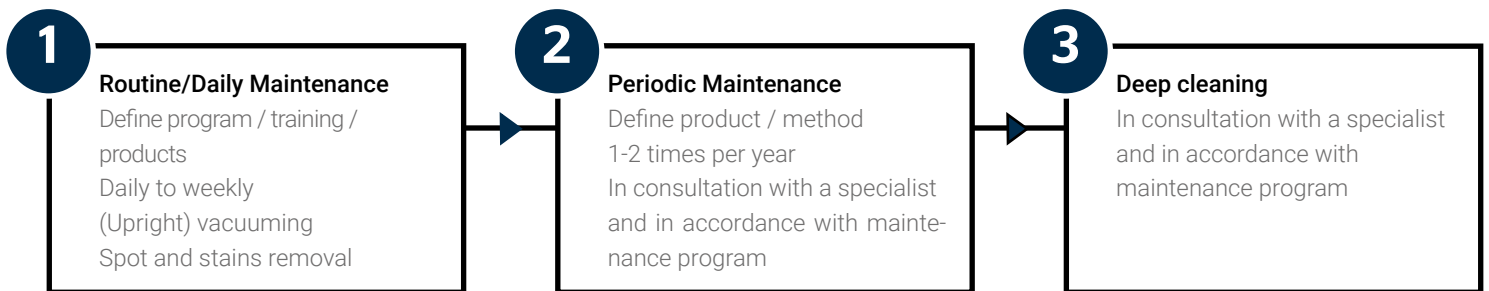
DESSO

Maintenance manual

PREVENTIVE MEASURES

Carrying out a proper maintenance program has a positive effect on the aesthetics and performance of your carpet flooring, thereby preserving, maintaining and extending the life of your investment. However, defining and executing the most effective cleaning method is not the only aspect of a proper maintenance program. One preventive measure to take is to install dirt barrier zones with scraping and absorbing effect (such as DESSO Protect) at all entrances, with sufficient length and starting outside the building. Doing this is essential to keeping dirt outside. Another important preventive measure is selecting the right products, in colour, pattern and structure for all parts of your building.

Tarkett recommends a three-step maintenance program with routine/daily maintenance, periodic maintenance and deep cleaning as described below. The frequency of maintenance depends on colour, the intensity of use, area and grade of representation.



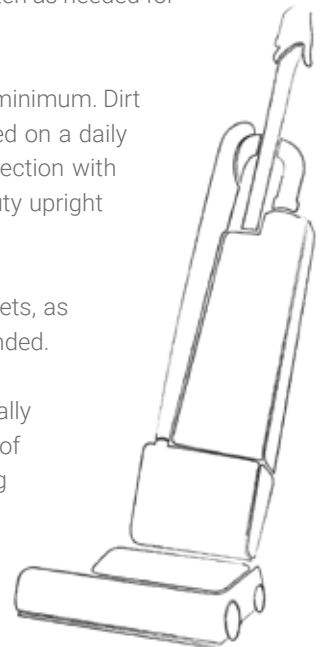
1 ROUTINE/DAILY MAINTENANCE

Routine/daily maintenance is a combination of vacuum cleaning and spot removal, carried out as often as needed for the different zones within your building.

Effective vacuum cleaning is an essential part of a proper maintenance program to keep soiling to a minimum. Dirt barrier zones and heavy traffic areas, such as lobbies and hallways, should be intensively vacuumed on a daily basis. Other areas, such as offices and board rooms, can be vacuumed daily based on visual inspection with a thorough overall vacuuming at least once a week. For best results Tarkett recommends heavy duty upright vacuum cleaners with a brushing action and efficient, clean filters.

Note : For needle punch fiber products like DESSO Lita, high cut pile and polyester yarn made carpets, as well as woolen loop pile carpets predominantly vacuuming with a suction only vacuum is recommended.

Additional to vacuuming, regular spot removal should take place to maintain a good appearance. Ideally spills are removed immediately to prevent them from becoming permanent stains. The majority of (water based) stains can be removed with a clean white cloth and lukewarm water, after drying possibly treated afterwards with an appropriate carpet cleaning agent. Excessive moisture should be absorbed first (from the outside in) and rubbing and excessive use of water should be avoided. Dried or aged stains can first be treated with a blunt object (e.g. a spoon) to remove dried residue by vacuuming. Other (oil based) stains and chewing gum should be treated with a suitable carpet cleaning agent.



COMMON STAINS

As stated above, most common (water-based) stains can be removed by using a clean white (cotton) cloth or absorbent paper (without print) and lukewarm water. Other (oil-based) stains should be treated with an appropriate carpet cleaning agent. It is always recommended to remove stains as quickly as possible by following the instructions on the container and by testing it on a concealed part of the floor. In all cases repeat treatments where required after drying until the stains are removed (always avoiding excessive rubbing). In cases where you need more information, contact Tarkett and/or your partners in carpet maintenance.

Coffee/Tea/Soda/Wine

First remove as much excess moisture as possible with a clean white (cotton) cloth or absorbent paper. Take another white cloth, moistened with lukewarm water to clean the last remaining spillage from the outside in (avoid rubbing and excessive use of water). Leave the carpet to fully dry and repeat this if necessary (possibly with an appropriate carpet cleaning agent).

Food/Fruit

Remove all remaining parts with a spoon (or equivalent blunt object) and follow the instructions as with coffee/tea/soda/wine. If residues of the stain remain the procedure can be repeated with an appropriate carpet cleaning agent.

Chewing gum

For best results use a specialist chewing gum removal product. Always follow the instructions on the container.

Toner/Paint/Glue

First remove any dry compound remaining with a spoon (or equivalent). Use an appropriate carpet cleaning spot removal product on a clean white cloth and treat the remaining stain.

Note: Never apply a solvent based stains removal product directly onto the carpet surface. This can cause dissolution of carpet components. Always apply on a white cloth!

Blood/Urine

Similar as coffee/tea/soda/wine.



2 PERIODIC MAINTENANCE

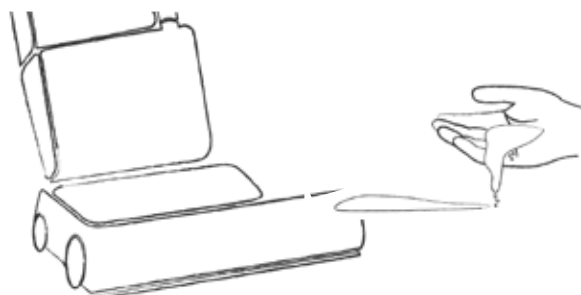
Periodic Maintenance takes place if the daily maintenance no longer gives the desired performing and preferably should be carried out by a specialist. Generally, this periodic maintenance is carried out 1 to 2 times per year, depending on the specific needs of your building and the different areas within. From the many cleaning methods available, Tarkett recommends two options: crystal dry cleaning and dry compound cleaning. Be assured that the product used does not cause re-soiling. Always vacuum before carrying out either of these methods.

The **crystal dry cleaning** (Encapsulation) method is a low moisture procedure that involves spraying an encapsulation liquid solution on the carpet, gently brushing these into the carpet piles and, after a drying period of approximately one hour, vacuuming thoroughly. The crystals effectively encapsulate any soil which can then be removed by vacuum cleaning. The main benefits of this method include ongoing access to the room or area that is being treated, a reduced treatment time and colourless residue (if any). For the best results it is very important to use the proper type of crystals.

The method of dry compound cleaning is similar to crystal dry cleaning with a few differences: the 'dry' powder (it can feel moist) is spread onto the carpet by hand and mechanically brushed in. Extra attention needs to be paid to the full removal of any residue (powder and soil) as it is not colourless. This method is not suitable for needlefelt products (DESSO Forto), Compact tuft products (DESSO Trace/Verso/Visions of) and high cut pile products (DESSO Twist). For these products Tarkett recommends crystal dry cleaning. In case of **dry compound cleaning** you can use the room or area during the maintenance procedure also.

When using either method, make sure to first test them on a concealed part of the floor for the colourfastness of the carpet.

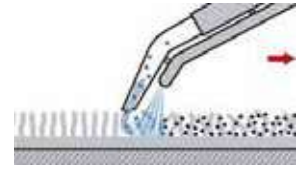
Note: For needle punch fiber products like DESSO Lita, hot water extraction is the only recommended cleaning procedure (see 3)



3 DEEP CLEANING

Proper routine maintenance on a daily/weekly basis, supported by periodic maintenance, keeps the aesthetics and performance of your carpet flooring at a satisfactory level for a long period. The better your maintenance plan is set up and executed the longer this period will be. However, over time your carpet may accumulate ingrained soil deeply embedded in the pile and specialist restorative maintenance will need to be carried out. This should be taken place on advice and in consultation with a specialist, in accordance to the maintenance plan. Tarkett recommends the method of hot water extraction to deep clean your carpet. This must always be preceded by intensive vacuum cleaning and possibly also spot removal or pre-spraying to loosen stain residues.

Hot water extraction is a wet deep cleaning method using a pre-spray and a special machine. After vacuuming the carpet surface, an appropriate cleaning agent must be sprayed at the soiled carpet. After that the machine injects clean warm water deep into the carpet to take up the soil and removes the resulting dirty mix of water and used cleaning agent with a built-in vacuum system and rinse the carpet surface. This combination is the most effective method. It allows more time for chemical action and neutralizing the cleaning chemical in the rinse. It is very important not to use excessive amount of water to avoid over-wetting the carpet. It is therefore recommended to get a specialist (carpet) cleaning company carry out this type of maintenance. Furthermore it is very important to make sure the floor is given enough time to dry before it is used again (generally 1-2 days).



AT YOUR SERVICE

The maintenance plan as described above provides guidelines as recommended by Tarkett. However, we understand that the actual maintenance program also depends on your individual building requirements. Defining a proper maintenance plan with specific details on methods, frequencies and building zones based on the specific characteristics of your location and type of carpet installed is essential for maintaining optimum aesthetics and performance of your carpet installation. Tarkett and/or your partner in maintenance are available to support you in this.

MAINTENANCE AND CRADLE TO CRADLE®

As a Cradle to Cradle® company, Tarkett aims to design and produce its products in such a way that they have a positive impact on people's health and wellbeing and can be disassembled and recycled. It also sets targets to step up the amount of energy we use powered by renewable sources, manage our water resources responsibly and develop take-back and recycling capabilities. Therefore our DESSO carpets become more than a product; they are a service that can contribute to a better world. Maintenance is an integral part of this service and the C2C principles need to be integrated into the maintenance program with the definition of methods, tools and cleaning agents. Additionally, a clean environment has a positive effect on the health and wellbeing of its user(s).

The main part of the maintenance program is covered by vacuum cleaning and spot removal by the use of water, where it is important to carefully consider the use of energy and water. In the case of specific spot removal (e.g. oil-based, chewing gum) and both periodic maintenance and deep cleaning it is essential to use the right carpet cleaning agents. This includes, among other aspects, their chemical composition and effect on maintenance staff and users, as well as the amount of residue in the carpet. The advantage of periodic maintenance compared to deep cleaning, is that cleaning agents and residues will not end up in the public water streams. Other tools, such as machines for deep cleaning, need to be assessed against their use of energy and any water and cleaning agents that may end up in the public water streams. Decisions on the use of such products and tools are then made against these criteria and in terms of their effectiveness in cleaning and maintaining the carpet.

The operation of the maintenance program and the use of cleaning agents is a determining factor for the condition of the carpet after its useful life and thus for the options to recycle or reuse the product as part of Tarkett's Restart program. The amount of soil and residue in the carpet determines the quality of the materials fed into the different recycling streams.

As part of the implementation process Tarkett is continuously researching into alternative cleaning agents and tools for their fit to the Cradle to Cradle® strategy and their performance in cleaning and maintaining carpet. Some recommended products are listed below.



DETERGENTS AND CLEANING AIDS

A wide range of detergents and cleaning aids are available for carpet cleaning and maintenance. Contact your Tarkett representative for products that either fit within the Cradle to Cradle® philosophy and/or meet the standards of performance in cleaning and maintaining carpet flooring products like:

Upright vacuum cleaners: Sebo (e.g. Dart 2), Lindhaus (e.g. RX eco Force and Windsor (e.g. Sensor S2 Hepa) or equivalent.

Vacuum filters: Hepa, S- class type or equivalent.

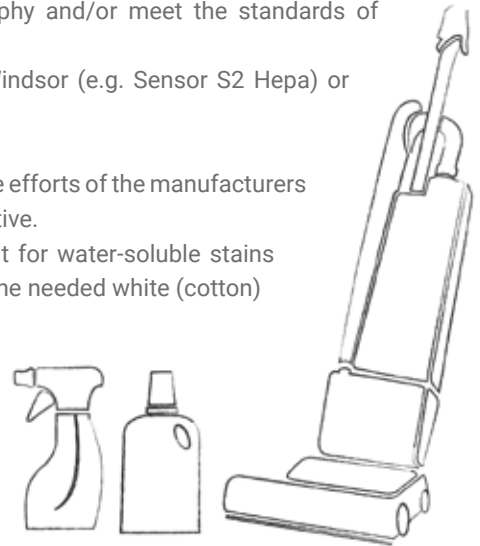
Spot and stains removers: Due to the ever-changing offerings in spot removers in the efforts of the manufacturers to make an environmental-friendly product, please contact your Tarkett representative.

Important for the Routine/Daily maintenance is the presence of a cleaning agent for water-soluble stains (coffee, tea, wine etc.) and a remover for oil based stains (grease, paint. etc.) with the needed white (cotton) cloth.

However, some detergents and cleaning aids should not be used as they do not meet Cradle to Cradle® standards or have a detrimental effect on the aesthetics and performance of carpet flooring products:

- Bleach (or bleaching agents)
- Products with pH levels below 5 or over 8
- Soap
- Tri (or tri-holding products)

For the best results always follow the instructions on the container. It is also important to first test cleaning agents on a concealed part of the floor for colourfastness. Contact Tarkett and/or your maintenance partner if you have questions or need further support.



Tarkett B.V.

P.O. Box 169
5140 AD Waalwijk
The Netherlands

TEL. +31(0)416 684100
FAX +31(0)416 335955
deso@tarkett.com
professionals.tarkett.com

About Tarkett

With net sales of more than €2.8 billion in 2017, Tarkett is a worldwide leader of innovative flooring and sports surface solutions. Offering a wide range of products including vinyl, linoleum, carpet, rubber, wood, laminate, synthetic turf and athletic tracks, the Group serves customers in more than 100 countries worldwide through its major brands: Tarkett, Desso, Johnsonite, Tandus Centiva, Tarkett Sports, FieldTurf and Beynon. With approximately 13,000 employees and 34 industrial sites, Tarkett sells 1.3 million square meters of flooring every day, for hospitals, schools, housing, hotels, offices, stores and sports fields. Committed to “Doing Good. Together”, the Group has implemented an eco-innovation strategy based on Cradle to Cradle® principles and promotes circular economy, with the ultimate goal of contributing to people’s health and wellbeing, and preserving the natural capital. Tarkett is listed on Euronext Paris (compartment A, ISIN: FR0004188670, ticker TKTT) and is included in the following indices: SBF 120, CAC Mid 60. www.tarkett.com

Descriptions, colours and specifications are subject to change without notice. Tarkett is not responsible for typographical/photographical errors. Actual product may differ from illustration. All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent- or other industrial or intellectual property rights. In case of doubt or differences of interpretation, the English version shall prevail over all other language versions.

©May 2018, Tarkett