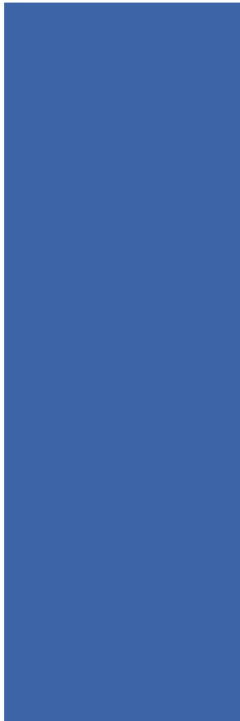
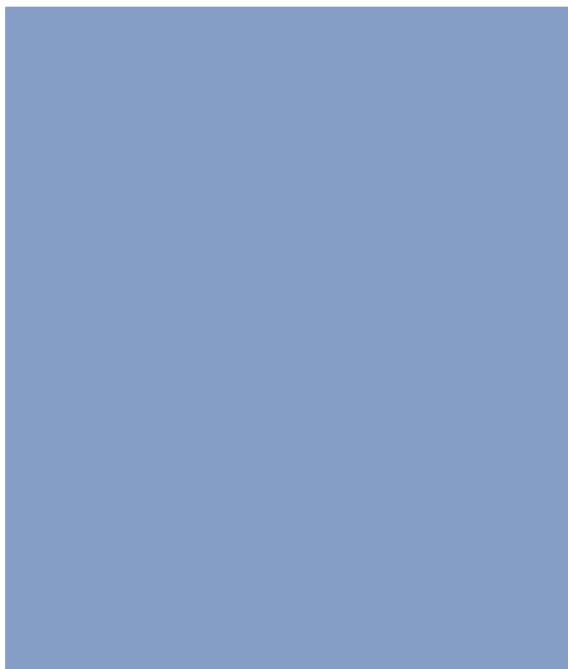


Linoleum Floor Care Method Bulletin 1414



A complete line of Multi-Clean® products and recommended maintenance procedures for a total floor care program on linoleum floors.

**Seals
Finishes
Restorers
Strippers
Cleaners**



STOP - READ BEFORE PROCEEDING

This methods bulletin is to be used **only** by appropriately trained persons in conjunction with such training. **IMPROPER USE OR OPERATION OF THE MULTI-CLEAN (CHEMICALS OR EQUIPMENT) POSES RISK OF PHYSICAL INJURY OR PROPERTY DAMAGE.** Specific risks include, but are not limited to, burns, and improper application of chemical products (e.g. wrong product, wrong product combinations, improper applicator use, and improper curing.) Because successful and safe application is the responsibility and obligation of the trained applier, the manufacturer disclaims any and all warranties, express or implied, including warranties of **MERCHANTABILITY** or **FITNESS OF PURPOSE**. The manufacturer shall have no obligation except to replace repair, or pay for, in its sole discretion, any chemical product or equipment shown to be defective.

No person has authority to waive these disclaimers or make any representations or warranties on behalf of the manufacturer, except in writing signed by the manufacturer.

If you have not had training with the particular product or equipment you intend to use, please call:

Multi-Clean at (651) 481-1900 to arrange training.

DO NOT USE THIS MULT-CLEAN SYSTEM OR ITS COMPONENT PRODUCTS WITHOUT APPROPRIATE TRAINING. FOR INDOOR USE ONLY.

A Brief History of Linoleum Flooring

Linoleum flooring was first patented in 1863. The name Linoleum comes from the Latin name, *linum*, which means linseed, which comes from the flax plant, and *oleum*, which means oil. Linoleum is manufactured by oxidizing linseed oil to form a thick mixture called linoleum cement. The cement is cooled and mixed with pine resin, wood flour, cork powder, ground limestone, pigments, and other natural materials. This mixture is formed into a durable sheet by applying heat and pressure onto a jute backing.

Linoleum peaked in popularity in the 40's and 50's. Vinyl surfaces replaced linoleum due to superior properties and cost. Linoleum has experienced a resurgence in popularity primarily due to its environmentally friendly attributes. Made from naturally derived materials and renewable resources, linoleum is a viable alternative to other types of flooring. Concerns about the effects of building materials on indoor air quality make the natural aspect of linoleum makes for an appealing flooring choice.

Do not confuse vinyl sheet flooring for genuine linoleum. Vinyl sheet is a synthetic material that can appear similar to linoleum, and is often referred to as linoleum. However, vinyl is chemically quite different. Vinyl does not have the sensitivity to alkaline chemicals that linoleum has. Linoleum is relatively easy to maintain, but should not be subjected to alkaline cleaners or alkaline strippers. See specific care and maintenance procedures on the following pages.

Genuine Linoleum vs. Vinyl

| Composition | Genuine Linoleum Natural Components (Linseed Oil). | Vinyl Floors Synthetic Materials (Polyvinyl Chloride and Urethane) |
|----------------------|---|---|
| Cleaners | pH must be less than 10 | No pH restrictions. |
| Strippers | Use only Strippers designed for Genuine Linoleum Floors | Any Stripper |
| Sensitivities | Excess Moisture or Alkalinity | None |

There Are Several Brands of Genuine Linoleum

| Brand Name | Manufacturer |
|-------------------|---------------------|
| Marmoleum® | Forbo Linoleum |
| Marmorette™ | Armstrong |
| Linoplan™ | Armstrong |
| Linosom™ | Domco Tarkett |

The 3 R's of Successful Floor Care

Floor maintenance procedures can be broken into 3 broad categories that relate to frequency, cost and labor intensity. Understanding the methods and procedures needed to achieve better looking floors is the first step toward a successful program.

Routine

- Dust mopping
- Cleaning: Scrub or damp mop
- Burnishing or spray buffing

Diligence in effectively performing these duties will:

- ***Improve day to day appearance***
- ***Reduce recoating frequency***
- ***Reduce stripping frequency***

Restorative

- Scrub and recoat

Done properly with the correct tools, this process will:

- ***Reduce floor yellowing***
- ***Avoid build-ups***
- ***Reduce stripping***
- ***Remove embedded dirt***

Renovative

- Stripping
- Refinishing

Sometimes it is a necessary practice to thoroughly strip a floor, which is essential prior to applying seals/finishes.

Focus efforts on the first two R's in order to reduce or eliminate the third.

Doing the Job Right from the Beginning

The first step in a sound floorcare program is to properly prepare the floor for seal and finish coats. The success of the entire program depends on the condition of the floor prior to application of finish coats. Some cases where stripping should be considered:

- Finish heavily damaged or discolored
- New manufacturer
- New floor
- Heavy build-up
- Unknown finish on floor
- New floor care system

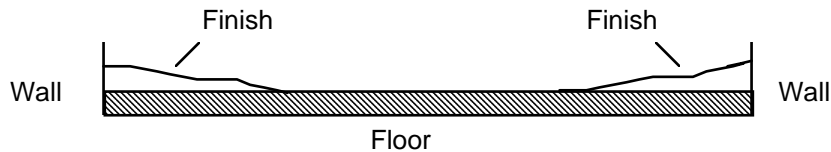


Illustration shows finish and build-up along walls and baseboards

Stripping Procedures

*Stripping genuine linoleum floors requires strippers to be specifically formulated for linoleum. Genuine linoleum is sensitive to alkaline chemicals. Traditional alkaline strippers such as Multi-Cleans Inferno, Mop-On Stripper or Stampede Floor Strippers can cause discoloration or permanent structural damage to the floors and are **NOT** recommended for use on Linoleum Floors.*

Multi-Clean's Lino-Strip is specifically formulated to work safely on Linoleum Floors.

Dust mop floor to remove loose debris.

Apply properly diluted Lino-Strip (see Exhibit A below) with a mop and bucket. Apply generously, about 75 sq.ft./gal.

Wait 5-10 minutes to allow stripper to work, no longer. Do not allow the stripping solution to dry out.

Agitate using a low speed (175 rpm) floor machine or automatic scrubber equipped with a green stripping pad or a soft brush. Do not use brown, black or Hi-Pro Stripping pads or stiff brushes, as they can damage linoleum.

Hand agitate along wall or in corners.

Remove stripper solution with a wet/dry vacuum or automatic scrubber.

Repeat if necessary until all finish is removed.

Rinse with 1 oz./gal. Century or plain water.

- Good: Damp mop rinse two times, changing water frequently.
- Better: Flood rinse then pick up with wet/dry vacuum
- Best: Scrub floor with an automatic scrubber or low speed machine and pick up solution.

Allow the floor to dry 10-45 minutes. When the floor is properly stripped, its color should look somewhat faded and uniformly dull.

Apply new floor finish to protect the floor.

Exhibit A

Lino- Strip Linoleum Floor Stripper

Effective at stripping traditional floor finishes and also UVI-Finish from linoleum floors.

Mild pH

Dilutions: 1:4 for normal stripping

1:2 for heavy finish buildup

Lino-Strip will not harm genuine linoleum floors when used as directed.

See the back page for a list of Multi-Clean products that are compatible with linoleum floors.

Procedure

- Begin with a thoroughly stripped or scrubbed clean floor. (See page 3.)
- Use a new or clean rayon mop which has been designated for finish only. Presoak mop overnight for a new mop, and a few hours for a clean mop. Mop bucket and wringer should be clean and not previously used with disinfectant cleaner.
- Pour seal in the mop bucket. Use an amount that is slightly less than the amount required to finish the job. If more is needed it can be added, however, if you have poured out more than is needed the remaining finish should not be poured back into container. The average coverage is 1500-2500 square feet per gallon depending on the porosity of the tile. If floor finish is used in place of a seal follow the same procedures.
- Soak the mop in the bucket filled with seal/finish making sure the entire mop is moistened by the solution.
- Lift the mop head into the mop wringer and place it in an overlapping manner pressing gently to remove any excess finish.
- Lift the mop out of the wringer. If excess seal/finish is dripping from the mop place back in wringer and press.

An alternative method is to use Multi-Clean's Microfiber Speed Applicator to apply both seal and finish. The special microfiber pad applies finishes smoothly, evenly, and with great speed.

Helpful Hints:

- Seal the floor if it is old, or is extremely porous, or is in questionable condition.
- No seal is needed if it is a brand new floor or if it has been deep scrubbed rather than completely stripped.
- Beginning in an area furthest away from the doorway, outline a manageable (10' x 20') area staying 6-8" away from walls on first coat (see diagram). Applying seal/finish in an overlapping figure eight motion flipping the mop head when the coat begins to thin. Return to the mop bucket when both sides of the mop have been used. Continue this procedure until entire floor surface has been finished. Before applying the next coat, refer to directions for dry and recoat times. Generally, you must wait 20-60 minutes depending on the weather conditions and the number of coats applied. (A very humid environment will prolong drying times.) It is not necessary to apply every coat right up to the wall. There is usually very little traffic or wear so it is important not to build finish up along the walls. In a four coat system, stay six to eight inches away from the wall on the first and third coats. The final coat should always go to the wall.



Number of Coats:

Seal:

Apply one to two thin coats following proper procedures. When a satin gloss appears then proceed with finish coats. If no satin gloss appears, apply another coat of seal.

Multi-Clean Finishes:

Apply one or two coats. If greater gloss and/or coating thickness is desired apply one or two more coats as needed. Limit the total number of coats (seal and finish) to four in one day. If further coats are required, it is recommended that 48 hours be allowed before their applications. Allow sufficient dry time between coats (normally 20-60 minutes depending on conditions).

Daily: Entire Facility

DUST MOP floor a minimum of two times a day to remove abrasive dirt particles, dust, and debris from the floor.

CLEAN by thoroughly scrubbing with *Century Maintenance Cleaner* (1 oz./gal.) using a white or red pad.

Weekly: Entire Facility

CLEAN floor as recommended above. Spray buff, if desired to restore shine. Use *Buff 'N Clean*, red pads on a 175-350 rpm machine.

SPRAY BUFFING

- Frequency of buffing is dependent on many factors. A facility should be segmented into high, medium and low traffic areas, and spray buff frequency determined accordingly.

Monthly: High Traffic Areas

DEEP SCRUB with a blue pad using *Century Maintenance Cleaner* @ 4 oz./gal.

RINSE floor after scrubbing.

APPLY 1-2 coats of finish.

Quarterly: Medium Traffic Areas

DEEP SCRUB and **RINSE** as described above.

RECOAT with one to two coats of finish.

- Low traffic areas may only need re-coating 1-2 times annually depending on traffic levels.

Yearly: Entire Facility

STRIP floor with Lino-Strip Linoleum Stripper. See page 3 for specific instructions.

Stripping of an entire facility may not be required on an annual basis. Extension of the stripping cycle is possible and depends on the quality and efficiency of the maintenance program.

APPLY up to 4 total coats seal and/or finish. If additional coats are desired, wait one week before applying more.

Helpful Hints

Do :


- __ Mop up spills as soon as possible, prevent spots from becoming stains.
- __ Rinse floor before applying floor finish
- __ Use a clean mop head
- __ Clean floors on a regular basis
- __ Use walk-off matting.
- __ Protect floor from sharp furniture legs by placing furniture caps on them.

Do not :

- Use any chemical over pH: 10
- Apply true wax, furniture polish, or silicone products onto the genuine linoleum
- Apply finish to a floor with a dirty surface. It only seals the dirt in.
- Apply thick coats of finish. Two or three thin coats are better than one thick coat.
- Use too much water.

A Method to Reduce Stripping Frequency

The goal of every Floor Care Program is better looking floors and should include reduced stripping frequency. A Scrub and Recoat program is a key restorative procedure that can delay stripping when done properly.

| Scrub and Recoat | | |
|---|--|---|
| <p>1. Worn Floor Finish top coat is dull and worn, and embedded with dirt.</p>  | <p>2. Scrubbed floor Ready for finish Aggressive scrubbing removes worn, soiled top coat.</p> | <p>3. Recoated floor Floor restored to high gloss by applying two new coats of finish.</p> |
| Finish 2 | | Re-coated Finish 2 |
| Finish 1 | Finish 1 | Re-coated Finish 1 |
| Seal 2 | Seal 2 | Seal 2 |
| Seal 1 | Seal 1 | Seal 1 |
| Floor Tile | Floor Tile | Floor Tile |

A. Procedure: Automatic Scrubber

1. **Dust** mop floor.
2. **Deep Scrub** using an autoscrubber with a BLUE pad and **Century**, 4 oz. per gallon.
3. **Scrub Rinse** with water or **Century** (1 oz./gallon) using same pad.
4. **Allow** to dry. Floor should be uniformly dull.
5. **Apply** one or more coats of finish.

B. Procedure: Alternate floor machine and vacuum method

1. **Dust** Mop floor.
2. **Apply** a generous quantity of cleaner solution to the floor via mop and bucket using **Century**, 4 oz./gallon.
3. **Scrub** with a low speed (175 rpm) machine using a BLUE pad.
4. **Pick up** solution with a wet-dry vacuum.
5. **Rinse** once or twice by damp mopping with water or 1 oz./gallon **Century**.
6. **Allow** to dry. Floor should be uniformly dull.
7. **Apply** one or more coats of finish.

Multi-Clean Floor Seals, Finishes, Restorers & Cleaners

for Safe Use on:

Genuine Linoleum Floors

Floor Finishes

Splendor®

Versatile, high gloss, high durability finish with excellent clarity. Suitable for low or high speed maintenance programs.

Premier

Unsurpassed durability, brilliant gloss, optical brightener, scuff and black mark resistance.

Prime Shine® Ultra

Tough, brilliant, ultra-high speed finish.

Decade 100 Floor Finish

25% high solids finish for the ultimate gloss.

Acryl-Kote® Seal and Finish

Basecoat for Multi-Clean finishes.

Performax 17 & 20

General purpose, economical and designed for bid situations.

Clear Essense

Certified floor finish for use in green cleaning programs.



Restorers

Energize Plus

High gloss spray refinisher

R.S.B.

High speed gloss restorer.

Buff N' Clean

Cleans and renews floor beauty in one operation, for 175-300 RPM spray buffing.

Cleaners

Century Maintenance Cleaner

Neutral, non-dulling floor cleaner.

#5 Century Maintenance Cleaner

Multi-Task Dilution System,
Green Seal certified.



Strippers

Lino-Strip

Stripper specifically designed to safely strip floor finish off linoleum floors.

Applicators

Micro Mop Refill



Applicator Frame



Telescopic Handle

WARNING & DISCLAIMER: Results may vary. Multi-Clean chemicals are to be used only by appropriately trained personnel. IMPROPER USE POSES RISK OF PHYSICAL INJURY OR PROPERTY DAMAGE. See appropriate Multi-Clean Method Bulletin for further warnings and information for your application. The suitability of and proper application of this product is the responsibility of the applicator. The manufacturer disclaims all warranties, express and implied, including any warranties of MERCHANTABILITY AND FITNESS OF PURPOSE. The manufacturer's liability is limited to replacement of or reimbursement for any product proved defective. No person has authority to waive these disclaimers or make any representations or warranties on behalf of the manufacturer, except in writing signed by the manufacturer.



600 Cardigan Road,
Shoreview, Minnesota 55126
Phone: 651-481-1900
Fax: 651-481-9987
www.multi-clean.com