

CLEANING AND PROTECTING RESILIENT  
FLOOR COVERINGS

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They obscure soiling and scuffing and give good light reflection values for better seeing. It is desirable from a maintenance standpoint to avoid solid colors, very light and very dark colors, as each readily shows soil.

1. GENERAL

1.01 This section describes the procedures to be followed for cleaning resilient type floor coverings and for applying protective coatings to preserve them against wear and soil penetration. The resilient floor coverings included are the following:

Asphalt Tile

Linoleum - Sheet and Tile

Rubber - Sheet and Tile

Vinyl Asbestos Tile

Miscellaneous - Vinyl, Cork, Wood

1.02 This section is reissued and generally revised to include vinyl asbestos tile, vinyl, cork and wood floorings. Also, to include the use of a Liquid Floor Cleaner and Floor Wax W-8 containing "Ludox" a colloidal silica which contributes slip resistant properties to the wax.

1.03 The resilient floor coverings listed in Paragraph 1.01 are used in telephone buildings for the following purposes:

- (a) To provide durable, resilient, and safe walking surfaces.
- (b) To provide floor surfaces that are smooth and easy to maintain.
- (c) To improve the appearance of the space. Marbleized designs in contrasting color combinations afford the best appearance.

2. LIMITATIONS OF RESILIENT FLOOR COVERINGS

2.01 The several types of resilient floor coverings listed will provide long service if they are properly maintained, and their limitations are recognized. Damage to such floorings results from the use of improper cleaning materials, improper cleaning methods and mechanical injury. It is important that only the recommended cleaning materials be used and in the stated quantities.

2.02 To provide maximum service life, enhance appearance and reduce maintenance effort, the surfaces of resilient floors are treated with floor waxes or Anti-Slip Floor Dressing. These coatings take the wear resulting from traffic and minimize dirt penetration into the material. It is essential that such protective coatings be easily renewed on a spot and over-all basis. The Bell System water emulsion waxes meet this requirement as does also the Bell System Anti-Slip Floor Finish. When applying such coatings care should be exercised to avoid build-up in areas not subject to traffic.

2.03 Resilient floor coverings are given a surface treatment of wax by the manufacturer for protection during storage, handling and installation. This factory finish must be removed prior to the application of the recommended Anti-Slip Floor Finish to insure satisfactory application and maximum slip resistance.

2.04 The primary cause of mechanical injury to the surface of resilient floorings is improper furniture footings and bases. To prevent such injury, chairs should have casters, with soft wheel treads, desk legs adequate flat undersurfaces or protective rubber cups. "Domes of Silence" should be removed from chairs, desks, settees, etc, in favor of approved footings. Lockers should be placed on boards with the bases enclosed or fitted with adequate shoes. Such items as file cabinets and bookcases which rest directly on the floor should have asphalt floor runners or other suitable nonstaining water resistant protective material placed between the base and the floor surface. This pre-

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vents rust stains due to water penetration which may occur in the course of cleaning. Rust stains can not be removed without damage to the surface. Heavy objects such as furniture, cable reels and telephone equipment should be moved across resilient floors only on dollies having wheels with wide rubber tired treads. Heavy material or equipment is stored on resilient floors only after the floor has been protected with boards or plywood. During construction work, areas exposed to heavy traffic and severe dirt conditions, solder drippings or other mechanical injury incident to carrying out the work, should be protected with asphalt floor runners or other protective material.

2.05 At focal points of traffic such as at doorways in front of switchboards, etc, where considerable soiling occurs and relatively frequent spot cleaning and waxing are required, consideration should be given on new installations to providing a contrasting color at these locations. The area where the contrasting color is installed provides a cutoff for spot cleaning and waxing.

### 3. ASPHALT TILE

3.01 Asphalt tile is made of asbestos fiber, clay fillers, color pigments and asphaltic or resinous binders. It is manufactured in two basic types - regular and greaseproof. The latter employs resinous binders only. The tiles are furnished in four color grades ranging from plain dark to light marbled colors. Each color grade carries a price differential, with the lighter and more striking colors the more expensive.

3.02 Asphalt tile is the lowest cost resilient flooring. It is also the least durable, and therefore should be protected against wear with wax or Anti-Slip Floor Finish. The regular grade is dissolved by oils and greases, but the greaseproof grade resists damage from these sources. Asphalt tile is especially suitable for floors laid on or below grade where moisture penetration may occur. It is resistant to moisture and accompanying alkaline conditions commonly encountered in concrete floors.

3.03 Day-to-day cleaning of asphalt tile consists of dustless sweeping as covered by:

SECTION H51.104.1 - SWEEPING, DUSTLESS,  
DAMP CLOTH METHOD, OR

SECTION H51.104.2 - SWEEPING, DUSTLESS,  
TREATED CLOTH METHOD

Periodic cleaning on either a spot or over-all

basis involves wet mopping and scrubbing as covered by:

### SECTION H51.107 - FLOOR MOPPING AND SCRUBBING

Where asphalt tile floors are maintained with wax, either Powdered Soap or Liquid Floor Cleaner is employed as the cleaning agent. Powdered Soap is used in the ratio of one to two table-spoonfuls to ten quarts of warm water. The Powdered Soap may be fortified with one to two tablespoonfuls of Pyrophosphate Cleaner when necessary, particularly in hard water areas, where soil conditions are severe, and for removing old or excessive wax coatings. When Powdered Soap and Pyrophosphate Cleaner are used in the same cleaning solution the pyrophosphate is added first and completely dissolved before adding the soap. Where the floors are maintained with Anti-Slip Floor Finish, Liquid Floor Cleaner is used for routine cleaning in the ratio of one part cleaner to sixteen parts of warm water.

3.04 In converting asphalt tile from wax maintenance to Anti-Slip Floor Finish or vice versa, Liquid Floor Cleaner may be used in ratios up to one part cleaner to five parts of warm water to insure complete removal of all old wax. Also it may be necessary to use similar high concentrations of Liquid Floor Cleaner for removing coatings of Anti-Slip Floor Finish which have not been renewed for a long period and have become hard to remove. Liquid Floor Cleaner in normal concentration also is effective for removing old wax coatings. All cleaning agents are more effective in warm water. Where warm water is not available, the Liquid Floor Cleaner is preferable to the powdered materials. Scouring powder may be applied sparingly on tenaciously soiled spots for either type of maintenance. Steel wool should not be used on asphalt tile floors.

3.05 Asphalt tile is maintained with Liquid Floor Wax, Floor Wax W-8 or Anti-Slip Floor Finish as covered by:

### SECTION H51.106 - FLOOR WAXING, OR

### SECTION H51.102 - APPLICATION OF ANTI-SLIP FLOOR FINISH

Asphalt tile when waxed has the least slip resistance of any of the resilient floorings because of its hard composition. Accordingly, Anti-Slip Floor Finish is recommended for public business offices, cafeterias, lobbies or other areas where moisture may be tracked onto the floor or where spillages may occur. As an al-

ternate selection for office areas having heavy female traffic and for traffic quarters the special slip resistant Floor Wax W-8 containing "Ludox" provides good slip protection and somewhat easier maintenance. Liquid Floor Wax is suitable for lightly or occasionally occupied floor areas such as switch rooms, CDO's, etc, as it affords maximum wear and ease of maintenance.

3.06 No petroleum base liquid or paste wax should be used on asphalt tile because it will dissolve the asphalt composition. Floor sweeping compounds containing oil should also be avoided. Varnish, lacquers or floor sealers containing organic solvents are harmful and should not be used.

3.07 Asphalt tile requires maximum protection from mechanical damage because its indentation resistance does not exceed 25 pounds per square inch of sustained load and the surface does not recover from indentations. This is in contrast to the recovery from indentations characteristic of the other types of resilient floorings. All furniture footings and bases should be examined for smooth under surfaces and adequate floor area contact to avoid indentations. Only casters with soft rubber treads should be used on asphalt tile floors. It is essential to protect the regular grade from oil and grease drippings from installed machinery.

#### 4. LINOLEUM

4.01 Linoleum is basically a mixture of wood flour or finely ground cork, oxidized linseed oil, color pigments, mineral fillers and resinous binders bonded to burlap or felt. Burlap backed linoleum is greatly preferred to the felt backed variety because of the ease of removal and reuse and its greater resistance to indentation. Marbleized patterns while slightly higher in price have replaced solid colors as the small differential is compensated for by lower upkeep expense.

4.02 Linoleum in the "heavy" or 1/8-inch grade, is the most extensively used of the resilient floor coverings and is found in such areas as offices, operating rooms, switch rooms, corridors and lounges. Linoleum is not suitable for laying on floors that are in contact with the ground. Such floors are subject to moisture penetration which will cause linoleum to deteriorate.

4.03 Day-to-day cleaning of linoleum consists of dustless sweeping as covered by:

SECTION H51.104.1 - SWEEPING, DUSTLESS, DAMP CLOTH METHOD, OR

SECTION H51.104.2 - SWEEPING, DUSTLESS, TREATED CLOTH METHOD

Periodic cleaning on either a spot or over-all basis involves wet mopping and scrubbing as covered by:

SECTION H51.107 - FLOOR MOPPING AND SCRUBBING

Where linoleum floors are maintained with wax, either Powdered Soap or Liquid Floor Cleaner is employed as the cleaning agent. Powdered Soap is used in the ratio of one to two tablespoonfuls to ten quarts of warm water. The Powdered Soap may be fortified with one to two tablespoonfuls of Pyrophosphate Cleaner when necessary, particularly in hard water areas, where soil conditions are severe, and for removing old or excessive wax coatings. The Pyrophosphate is dissolved in the water before adding the Powdered Soap. Where the floors are maintained with Anti-Slip Floor Finish, Liquid Floor Cleaner is used for routine cleaning in the ratio of one part cleaner to sixteen parts of warm water.

4.04 In converting linoleum from wax maintenance to Anti-Slip Floor Finish or vice versa or to remove factory finish from new linoleum, Liquid Floor Cleaner may be used in ratios up to one part cleaner to five parts of warm water to insure complete removal of all wax. Also, it may be necessary to use similar high concentrations of Liquid Floor Cleaner for removing coatings of Anti-Slip Floor Finish which have not been renewed for a long period and have become hard to remove. Liquid Floor Cleaner in normal concentration also is effective for removing old wax coatings. All cleaning agents are more effective in warm water. Where warm water is not available, the liquid cleaner is preferable to the powdered materials. Scouring Powder may be applied sparingly on tenaciously soiled spots for either type of maintenance. Steel wool should not be used on linoleum floors.

4.05 Linoleum is maintained with Liquid Floor Wax, Floor Wax W-8 or Anti-Slip Floor Finish as covered by:

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### SECTION H51.106 - FLOOR WAXING, OR

### SECTION H51.102 - APPLICATION OF ANTI-SLIP FLOOR FINISH

Linoleum when waxed provides greater slip resistance than asphalt tile due to its more resilient composition. Liquid Floor Wax is suitable for general application since it affords maximum wear and ease of maintenance. Where additional slip protection is desired, as in traffic quarters, the special slip resistant Floor Wax W-8 containing "Ludox" may be used. Anti-Slip Floor Finish is an alternate selection to Floor Wax W-8. Anti-Slip Floor Finish is recommended particularly for public business offices, cafeterias, lobbies and other areas where moisture may be tracked onto the floor or where spillages may occur.

4.06 Floor sweeping compounds containing oil should not be used on linoleum floors as the oil residues may create a slipping hazard. Varnish, lacquers or floor sealers containing organic solvents are harmful and their use should be avoided.

4.07 Linoleum will withstand static pressures up to 70 pounds per square inch before permanent indentation occurs. All furniture footings and bases should be examined for smooth undersurfaces and adequate floor area contact to avoid permanent indentations. Only casters with soft rubber treads should be used on linoleum floors.

## 5. RUBBER

5.01 Rubber floor covering is made from synthetic and natural rubber or combinations thereof, fillers and color pigments. It is highly resistant to wear, is expensive, very decorative from the standpoint of color brilliance and highly slip resistant. Rubber tile has a "plate" finish when manufactured and preservation of the plate is essential, for when it is worn through or damaged, maintenance becomes quite difficult.

5.02 Rubber in sheet or the more usual tile form is provided where special conditions, decorative effects, maximum durability and slip resistance warrant a premium quality material.

5.03 Day-to-day cleaning of rubber flooring consists of dustless sweeping, as covered by:

SECTION H51.104.1 - SWEEPING, DUSTLESS, DAMP CLOTH METHOD, OR

SECTION H51.104.2 - SWEEPING, DUSTLESS, TREATED CLOTH METHOD

Periodic cleaning on either a spot or over-all basis involves wet mopping and scrubbing, as covered by:

### SECTION H51.107 - FLOOR MOPPING AND SCRUBBING

Where rubber tile floors are maintained with wax, either Powdered Soap or Liquid Floor Cleaner is employed as the cleaning agent. Powdered Soap is used in the ratio of one to two tablespoonfuls to ten quarts of warm water. The Powdered Soap may be fortified with one to two tablespoonfuls of Pyrophosphate Cleaner when necessary, particularly in hard water areas, where soil conditions are severe, and for removing old or excessive wax coatings. The Pyrophosphate is dissolved in the water before the soap is added. Where the floors are maintained with Anti-Slip Floor Finish, Liquid Floor Cleaner is used for routine cleaning, in the ratio of one part cleaner to sixteen parts of warm water.

5.04 In converting rubber tile from wax maintenance to Anti-Slip Floor Finish or vice versa, Liquid Floor Cleaner may be used in ratios up to one part cleaner to five parts of warm water to insure complete removal of all wax. Also, it may be necessary to use similar high concentrations of Liquid Floor Cleaner for removing coatings of Anti-Slip Floor Finish which have not been renewed for a long period and have become hard to remove. Liquid Floor Cleaner in normal concentration also is effective for removing old wax coatings. All cleaning agents are more effective in warm water. Where warm water is not available, the Liquid Cleaner is preferable to the powdered materials. Scouring Powder may be applied sparingly on tenaciously soiled spots for either type of maintenance. Since Scouring Powder may damage the plate finish, care should be exercised in its use. Steel wool should not be used on rubber tile floors.

5.05 Rubber flooring is maintained with Liquid Floor Wax, Floor Wax W-8, or Anti-Slip Floor Finish as covered by:

### SECTION H51.106 - FLOOR WAXING, OR

### SECTION H51.102 - APPLICATION OF ANTI-SLIP FLOOR FINISH

Rubber flooring when waxed has the greatest slip resistance of any of the resilient floorings. Liquid Floor Wax is recommended for general application since it affords excellent wear and ease of maintenance. Where additional slip protection is desired, the special slip

resistant Floor Wax W-8 containing "Ludox" or Anti-Slip Floor Finish may be used.

5.06 No petroleum base liquid or paste or sweeping compound containing oil should be applied to rubber as they deteriorate the composition and create a slipping hazard. Varnishes, lacquers or floor sealers containing organic solvents also are harmful.

5.07 Adequate protection should be afforded rubber tile against mechanical damage. While this flooring has a resistance up to 200 pounds per square inch against permanent indentation, it is well to be assured that all furniture and other objects placed upon it have suitable footings or bases. Only casters with soft rubber treads should be used on rubber tile floors.

#### 6. VINYL ASBESTOS TILE

6.01 Vinyl asbestos tile consists of a composition of asbestos fiber, fillers, color pigments and binders including vinyl plastic resin. Good grades contain from twenty-five to thirty per cent vinyl resin. It has a smoother surface than the similar appearing asphalt tile and therefore better resists soil penetration. It is easier to clean than asphalt. The colors are brighter and do not bleed in cleaning.

6.02 Vinyl asbestos tile, while more expensive than asphalt tile is more resilient and is not damaged by oils and greases. It also is resistant to mild acids and alkalies. It is especially suitable for floors laid on or below grade where moisture penetration may occur. While vinyl asbestos tile wears better than asphalt it also should be protected against wear with wax or Anti-Slip Floor Finish.

6.03 Day-to-day cleaning of vinyl asbestos tile consists of dustless sweeping as covered by:

SECTION H51.104.1 - SWEEPING, DUSTLESS,  
DAMP CLOTH METHOD, OR

SECTION H51.104.2 - SWEEPING, DUSTLESS,  
TREATED CLOTH METHOD

Periodic cleaning on either a spot or over-all basis involves wet mopping and scrubbing as covered by:

SECTION H51.107 - FLOOR MOPPING AND  
SCRUBBING

Where vinyl asbestos tile floors are maintained with wax, either Powdered Soap or Liquid Floor

Cleaner is employed as the cleaning agent. Powdered Soap is used in the ratio of one to two tablespoonfuls to ten quarts of warm water. The Powdered Soap may be fortified with one to two tablespoonfuls of Pyrophosphate Cleaner when necessary, particularly in hard water areas, where soil conditions are severe, and for removing old or excessive wax coatings. The Pyrophosphate is dissolved in the water before the soap is added. Where the floors are maintained with Anti-Slip Floor Finish, Liquid Floor Cleaner is used for routine cleaning in the ratio of one part cleaner to sixteen parts of warm water.

6.04 In converting vinyl asbestos tile from wax maintenance to Anti-Slip Floor Finish, or vice versa, Liquid Floor Cleaner may be used in ratios up to one part cleaner to five parts of warm water to insure complete removal of all wax. It may be necessary to use similar high concentrations of Liquid Floor Cleaner for removing coatings of Anti-Slip Floor Finish which have not been renewed for a long period and have become hard to remove. Liquid Floor Cleaner in normal concentration also is effective for removing old wax coatings. All cleaning agents are more effective in warm water. Where warm water is not available, the liquid cleaner is preferable to the powdered materials.

6.05 Vinyl asbestos tile is maintained with Liquid Floor Wax, Floor Wax W-8 or Anti-Slip Floor Finish as covered by:

SECTION H51.106 - FLOOR WAXING, OR

SECTION H51.102 - APPLICATION OF ANTI-SLIP  
FLOOR FINISH

Vinyl asbestos tile is not as slip resistant as linoleum or rubber floor coverings, because of its harder composition. However, vinyl asbestos tile is somewhat more slip resistant than asphalt tile as it is more resilient than asphalt. Accordingly Anti-Slip Floor Finish is recommended for public business offices, cafeterias, lobbies, or other areas where moisture may be tracked onto the floor or where spillages may occur. As an alternate selection for office areas and traffic quarters the special slip resistant Floor Wax W-8 containing "Ludox" provides good slip protection and somewhat easier maintenance. Liquid Floor Wax is suitable for lightly or occasionally occupied floor areas such as switch rooms, CDO's, etc, as it affords maximum wear and ease of maintenance.

6.06 Varnish, lacquers or floor sealers containing organic solvents should not be used. Floor sweeping compounds containing oil

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should not be used on vinyl asbestos tile as oil residues may create a slipping hazard.

6.07 Vinyl asbestos tile will withstand static pressures up to fifty pounds per square inch before permanent indentation occurs. All furniture footings and bases should be examined for smooth undersurfaces and adequate floor area contact to avoid permanent indentations. Only casters with soft rubber treads should be used on vinyl asbestos floors.

7. MISCELLANEOUS

7.01 In addition to the above there are other types of resilient floors which, however, are used in very limited quantities in telephone buildings. They are CORK, VINYL and WOOD.

7.02 CORK tile is comprised of relatively coarse particles of cork compressed into tile form by means of pressure and heat. Since cork tile is inherently porous, the wear surface is usually sealed by the manufacturer with a clear flexible finish to minimize penetration of soil during use. Cork floor coverings are available only in tile form and only in natural cork colors.

7.03 CORK tile is very resilient as compared with other floor coverings. It will withstand static pressures up to forty pounds per square inch without permanently indenting. However, as with other resilient floor coverings, subject to disfigurement resulting from permanent indentation, furniture bases and chair casters should be reviewed to assure adequate floor protection.

7.04 CORK tile is cleaned and maintained similar to linoleum as described in Paragraphs 4.03, 4.04 and 4.05 except that because of its porosity the amount of water is kept to a minimum.

7.05 VINYL tile is the most expensive of all resilient floor coverings. It is composed of fillers and color pigments combined with vinyl plastic resin and is available in sheet and tile forms. It is more resilient

than asphalt or vinyl asbestos floor coverings and is also slightly more slip resistant. Its surface is resistant to oils, greases, mild alkalies and acids. However, coarse scouring powders may damage its surface.

7.06 While some manufacturers state that it does not require waxing such protection is desirable to minimize scratching of the surface under traffic and to facilitate cleaning. Maintenance with wax or Anti-Slip Floor Finish will prolong its service life.

7.07 VINYL tile will withstand static loads up to seventy pounds per square inch and, of course, as with other resilient floor coverings, furniture footings and bases should be examined to prevent permanent indentation.

7.08 VINYL tile is maintained by the procedures described in Paragraphs 6.03, 6.04 and 6.05 recommended for vinyl asbestos floor coverings.

7.09 WOOD floorings require somewhat different treatment than the resilient floor coverings, principally because unless thoroughly sealed the use of water or water emulsion waxes or the water emulsion Anti-Slip Floor Finish will raise the grain of the wood. If water is used excessively it can warp the boards. Wood floorings are of the hard varieties, i.e., maple, oak, beech, etc. While they are not subject to permanent indentation, furniture bases and footings should have smooth undersurfaces of adequate area to prevent scratching and marring the finish.

7.10 Where wood floors are not thoroughly sealed by means of varnish or bakelite sealers they are maintained with either paste or petroleum solvent type liquid waxes which do not raise the grain. Where they are adequately sealed, the water emulsion type floor waxes or Anti-Slip Floor Finish may be used. Thus thoroughly sealed wood floors are maintained in a manner similar to linoleum as described in Paragraphs 4.03, 4.04 and 4.05 but with minimum use of water.