

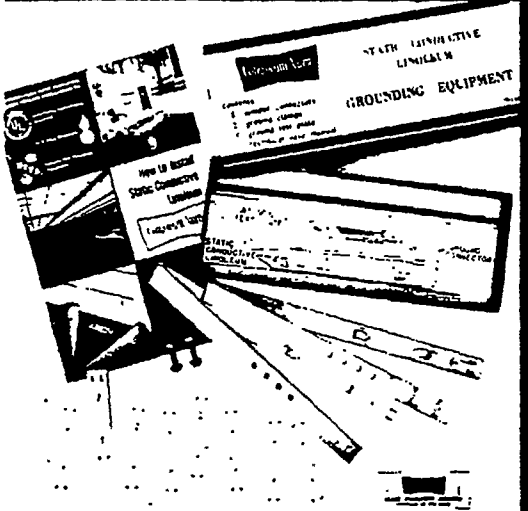
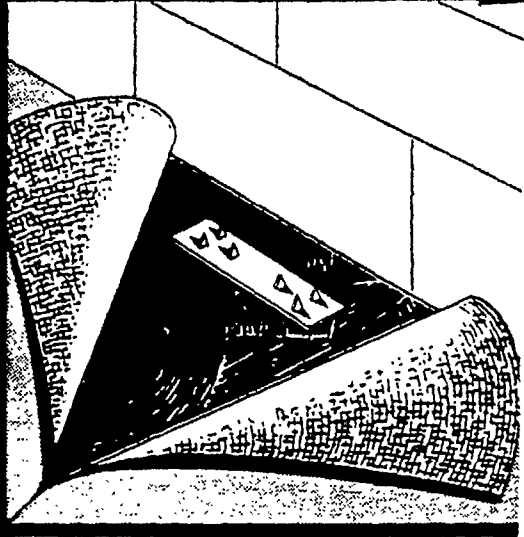
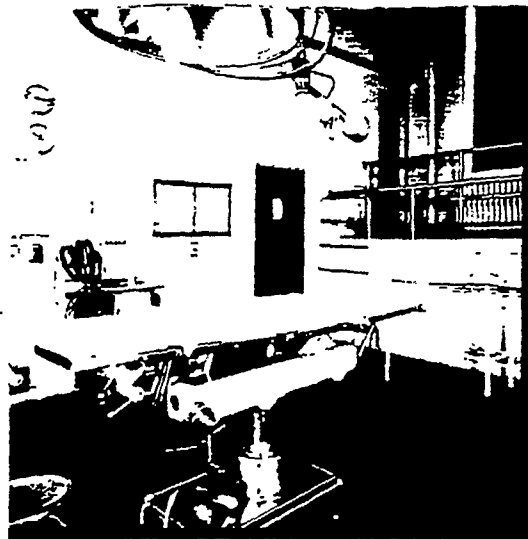
PROFESSIONAL INSTALLATION FILE 8-1464

How to Install⁴ Static Conductive 1966 Linoleum

Congoleum-Nairn
FINE FLOORS

PLAINTIFF'S EXHIBIT

CON-58



CONGOLEUM-NAIRN STATIC CONDUCTIVE
LINOLEUM MEETS THE SPECIFICATIONS OF:

Underwriters Laboratories
Approved



U. S. Army Ordnance



National Fire Protection
Association





Static Conductive Linoleum was selected for the "White Room" at the General Electric Plant at Lynn, Mass., for almost complete elimination of static electricity and dust — an indispensable condition in the assembly of delicate instruments.

Where Can Static Conductive Linoleum Be Used?

Hospital Operating Rooms	Shell Loading Rooms
Anesthetic Rooms	Shell Loading Tables
Anesthetic Storage Rooms	Explosive Powder Loading Areas
Recovery Rooms	Explosive Powder Storage Area
Corridors leading to Operating Rooms	Explosive Powder Loading Tables
Doctors Minor Surgery Rooms	Dentists Minor Surgery Rooms
Emergency Rooms	Solvent Storage Rooms

What is Congoleum-Nairn Static Conductive Linoleum?

Static Conductive Linoleum is a spark proof, shock proof 6 feet wide sheet goods linoleum, containing built-in precision controlled properties of electrical conductivity to dissipate dangerous static charge.

Why Use Static Conductive Flooring?

Static electricity is considered a grave hazard in the presence of explosive vapors, combustible material vapors, explosive dust, or any other hazardous substances which are combustible with oxygen.

In hospitals, explosions and fires do occur and are a constant threat to safety. These explosions and fires are caused by the ignition of combustible gases from static sparks. They can be eliminated if operating room personnel and equipment are grounded to a static conductive flooring.

A static conductive floor covering should be used to:

- offer maximum protection to those working with explosive materials.
- offer protection against shock caused by accidental grounding from service voltages.
- avoid annoying static discharge shocks to those working with high speed machines that build up static electricity.

Who Controls Hazard Protection Problems?

- *U. S. Army Ordnance
- *National Fire Protection Association
- *Underwriter's Laboratory

Congoleum-Nairn Static Conductive Linoleum meets the requirements and specifications of these protective agencies on all counts.

Having the approval of those hazard protection agencies, Congoleum-

Nairn Static Conductive Linoleum is readily acceptable for explosive hazard areas of all types. Copies of "Safe Practice For Hospital Operating Rooms," Bulletin 56 issued by the National Fire Protection Association (N.F.P.A.) may be secured from N.F.P.A. — 60 Batterymarch Street, Boston 10, Massachusetts, at a charge of \$.25 per copy.



Underwriters
Laboratories



U. S. Army
Ordnance



National Fire
Protection Association

Advantages of Congoleum-Nairn Static Conductive Linoleum

Exclusively Congoleum-Nairn's static conductive linoleum affords an almost seamless flooring, characterized by high wear resistance, flexibility, resiliency, smoothness and freedom from cracking. Because it is installed in six feet wide sheets, the floor is free from multiple joints which may harbor dirt and germs. It is, therefore, sanitary and easy to maintain. It is truly resilient, which means comfort underfoot for those who must spend long hours on their feet.

It is substantially unaffected by ordinary solvents such as alcohol, ether, petroleum derivatives, acids, and the like. Freedom from brittleness prevents cracks that would create isolated ungrounded areas or harbor explosive material.

Congoleum-Nairn Static Conductive Linoleum, like other types of commercial gauge linoleum, contains a high percentage of linseed oil in its formulation. Linseed oil has a high anti-germ value. Since Linseed oil is ever present in Static Conductive Linoleum, the flooring maintains a high germicidal quality at all times.

The satin finish of static Conductive Linoleum eliminates light reflectance from the floor.

Since Congoleum-Nairn Static Conductive Linoleum is produced under rigid controlled formulas and has built-in electrical conductivity properties, it eliminates the element of human error in mixing on-the-job conductive floors such as terrazzo, and troweled on conductive mastic type floors. Each roll of Static Conductive Linoleum is thoroughly checked against applying specifications before shipment from the mill. This assures your customer sustained conductive properties throughout the life of the flooring.

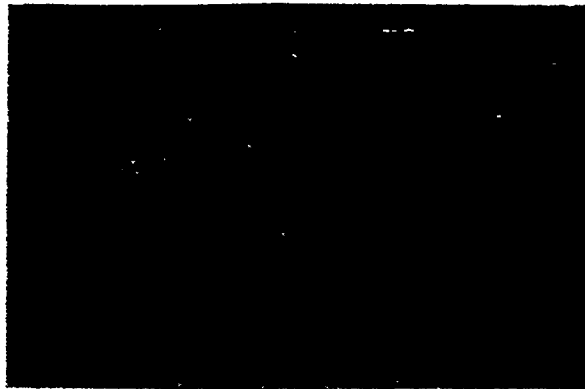
Static Conductive Linoleum offers the maximum in resilience, comfort under foot, and the elimination of noise. These properties are not found in hard tile, terrazzo, or vinyl conductive types of flooring.

Static Conductive Linoleum installs with an absolute minimum of seams and joints, therefore, eliminating the need for installing a metal foil underlayment or a metal grid as is required under most modular tile conductive floorings. A minimum of seams and joints eliminates the possibilities of isolated tile units that might become a serious hazard. Lack of joints eliminates the accumulation of moisture from constant clean up of the flooring and prevents dirt and germs from accumulating between joints of which many hundreds of feet exist where tile unit conductive floors are used.

Congoleum-Nairn Static Conductive Linoleum in 6' wide sheets offers all of the advantages of a resilient linoleum floor with over 50 years of proven service.

Color of Static Conductive Linoleum

Static Conductive Linoleum is made in black only. When ordering specify conductivity classification "U" or "G" as described below.



Plain Black

6 ft. wide, 1/8" gauge CL 5

Conductivity Classification

Static Conductive Linoleum is manufactured in two types to meet the requirements of two distinctive users: "U" type for Hospital Use — is manufactured with a resistance of 25,000 ohms minimum to 1,000,000 ohms maximum required for hospital use.

"G" type for Industrial Use — is manufactured with a resistance of 0 ohms minimum to 250,000 ohms maximum required for arsenals, powder plants, and other areas where explosive materials are used, packed, or stored.

Packaging Specifications

Static Conductive Linoleum is manufactured in 6' wide yardgoods only 1/8" overall gauge, on a burlap back.

The nominal weight is 7.4 lbs. per square yard, packed one piece to the roll. The roll contains a minimum yardage of 12 square yards and a maximum of 65 square yards. The average yardage is 56 square yards and the average roll weight is 416 pounds. Full rolls as cut orders are available.

Each roll of Static Conductive Linoleum has a grounding kit (see page 17) packed within the core of the roll. Should more than one area be scheduled from same roll, additional grounding kits, No. T 0125, should be ordered.

Adhesive Chart

For Congoleum-Nairn
Static Conductive Linoleum

TYPE UNDERFLOOR	SATURATED LINING FELT SU 10 °	GREEN LABEL PASTE SU 22	THREE SIXTY ADHESIVE SU 360	WITH RADIANT HEATING NOT TO EXCEED 100° F.
Suspended Strip Wood Floors	Yes	Yes ^a	No	Same
Suspended Plywood Floors	No	Yes ^a	No	Same
Suspended Concrete Floors	No	Yes ^a	No	Same
Suspended Terrazzo, Marble, Ceramic or Glazed Tile Floors	No	No	Yes	Same
On Grade Concrete Floors	No	No	No	Same
On Grade Terrazzo, Marble, Ceramic or Glazed Tile Floors	No	No	No	Same
On Grade Concrete Floors with complete impermeable membrane	No	Yes ^a	No	Same
On Grade Terrazzo, Marble, Ceramic or Glazed Tile Floors with complete impermeable membrane	No	No	Yes	Same
Metal Floors	No	No	Yes	Same

^a Where water resistant seams are specified or when installation will be exposed to abnormal amounts of surface water, the seams and perimeter of the area may be cemented with Congoleum-Nairn "Three-Sixty" Adhesive SU-360. Where this requirement is necessary over Suspended Plywood Sub-Floors, the floor covering must be embedded into wet adhesive immediately to avoid set-up of adhesive caused by absorption of liquid vehicle into the plywood.

[°] Lining felt shall be used over strip wood sub-floor only.

Installation Specifications

SUSPENDED WOOD UNDERFLOORS

• Materials:

FLOOR COVERING. The floor covering shall be 3/4" Congoleum-Nairn Static Conductive Linoleum, Part 1.

LINING FELT. The lining felt shall be Congoleum-Nairn Saturated Lining Felt SU-16. Lining felt is not recommended where wood sub-floor is of plywood.

ADHESIVES. The adhesive for cementing Congoleum-Nairn Static Conductive Linoleum to wood underfloors shall be Congoleum-Nairn Green Label Paste SU-22.

Where water resistant seams are specified or when installation will be exposed to abnormal amounts of surface water the seam areas and edges may be cemented with Congoleum-Nairn "Three-Sixty" Adhesive (SU-360).

• Underfloor Construction:

NEW FLOORS—ABOVE GRADE. The suspended wood underfloor shall be double construction according to the following requirements:

1. The lower boards shall be properly seasoned tongue and groove or ship-lap lumber of nominal 1" thickness and not over 5" wide. These boards shall be laid diagonally over the joists and thoroughly face nailed.
2. The top wood shall be either:
 - a. Thorough dry and properly seasoned 3/4" tongue and groove lumber of not over 3 1/4" face width laid at right angles to the joists and blind nailed with eight penny steel cut nails on 16" centers, or
 - b. 1/2" plywood (good one side) nailed with #3 1 1/4" flathead, cement coated drive screw nails. Nail the boards, starting in the middle on 6" centers throughout the field and 4" apart at the edge, 1/2" in from the edge. Install the linoleum so that its seams and the joints of the plywood do not coincide. The plywood sub-floor must be D.F.P.A. Underlayment Grade or "A Repaired D" quality. Underlayment Grade Hardboard 3/4" Masonite Board only may be substituted for Plywood. Masonite should be installed smooth side down and nailed in the same manner as Plywood. Plyscore or particle boards are not acceptable as underlayment.

NEW FLOORS—ON GRADE: Wood underfloors on-grade shall be constructed as above. They shall be at least 15" above the grade level and the space under the floor shall be properly ventilated.

• Radiant Heated Floors:

Wood floors containing a radiant heating system can receive linoleum. The radiant heating system shall be designed and operated so that the surface temperature of the floor is not more than 100° F. at any point.

• Underfloor Preparations:

1. Old double wood floors shall be prepared by replacing all defective and badly worn boards and firmly nailing all loose boards.

All unevenness at butts and joints shall be made level by planing or scraping or by overall machine sanding.

Surface deposits of oil, grease or wax shall be removed by washing or light machine sanding.

Paint and varnish films shall be roughened by light sanding to assure a good bond with the adhesive.

Stripwood floors that have been sanded to the point where all previous surface coatings have been removed shall be sealed immediately with thinned shellac.

2. Rough double construction wood floors may be resurfaced with 1/2" Plywood, good one side, by following directions given above after replacing defective boards and nailing loose boards.
3. Cracks and openings between floor boards shall be filled with a water resistant, non-shrinking, non-crumbling patching compound.
4. Suspended wood floors which are covered with sheet linoleum may be recovered with static conductive linoleum if the old covering is firmly adhered to the floor. All loose areas shall be nailed with 1/4" blue lath nails. The old floor covering shall then be machine sanded to remove all wax and other surface coatings and to provide a roughened surface to assure adhesion of the new adhesive.

• Application of Materials:

Linoleum, lining felt and adhesives must be stored in the original package at not less than 70° F. for at least 24 hours before installation. A temperature of at least 70° F. shall be maintained in the area receiving the installation for 24 hours prior to, during, and for 24 hours after the installation is complete.

Cover above grade stripwood floors with Congoleum-Nairn Saturated Lining Felt. Lay the felt across the floor boards. Carefully butt all joints (do not lap). All cross joints shall be double cut and staggered. The felt shall be fitted carefully to all vertical surfaces. When the felt sheets are fitted, turn half of each back on itself and spread Congoleum-Nairn Green Label paste on the floor with a fine notched trowel at a rate of 120-150 square feet per gallon. Embed the felt in the paste. Repeat on the second half. Roll the felt in both directions with a 150 lb. roller to assure complete adhesion.

Underfloors finished with plywood, or old sheet linoleum and wood floors constructed below grade shall receive the floor covering direct.

Install linoleum on floors thus prepared by scribing and cutting it to fit the room accurately and neatly and with the fewest possible seams. The linoleum shall be laid at right angles to the floor boards. When the underfloor is plywood, or old linoleum, care must be taken that the seams of the linoleum and underfloor do not coincide. Allow sufficient lap at junction of sheets to permit seam cutting.

When the linoleum is properly fitted, tube half the sheet at a time and spread Congoleum-Nairn Green Label Paste with a fine notched trowel at a rate of 120 square feet per gallon. Embed the linoleum in the spread adhesive and roll with a 150 lb. roller in both directions starting in the middle of the sheet and rolling outward to expel any air trapped under the linoleum and to embed it thoroughly in the paste. Seams shall then be cut to produce a neat, workmanlike seam.

To eliminate the possibility of decoration variance between adjacent sheets, every other sheet should be reversed so that abutting edges are from the same edge of the roll.

- **Water Resistant Seams:**

When specified, if when the installation will be exposed to abnormal moisture, the floor, under the seams and edges can be made water resistant by using Congoleum-Nairn "Three-Sixty" Adhesive spread on the floor for 3" on each side of each seam and for 3" along the walls.

SUSPENDED CONCRETE, TERRAZZO, CERAMIC TILE AND METAL FLOORS

- **Materials:**

FLOOR COVERING. The floor covering shall be 1/2" Congoleum-Nairn Static Conductive Linoleum, Part 1.

ADHESIVE. The adhesive for cementing Congoleum-Nairn Static Conductive Linoleum to suspended concrete underfloors shall be Congoleum-Nairn Green Label Paste SU-22.

The adhesive for cementing Congoleum-Nairn Static Conductive Linoleum to suspended terrazzo, ceramic tile, marble tile, quarry tile, and similar impervious materials, and to metal floors (decks) shall be Congoleum-Nairn "Three-Sixty" Adhesive SU-360.

- **Underfloor Construction:**

1. *Standard Construction:* The structural concrete slab shall have a cement topping not less than 1 1/2" thick and a mix no leaner than 1 part of Portland Cement and 3 parts of clean screened sand and fine crushed stone. It shall be steel trowel finished to a smooth, plane surface. It shall be properly cured and satisfactorily dry.
2. *Monolithic Construction.* The concrete floor slab shall be steel trowel finished to a smooth, plane surface. It shall be properly cured and satisfactorily dry. If curing preparations are used on the newly poured and finished surface they must be of a type that can be removed by abrasion. Curing compounds of an oily or waxy nature are not satisfactory and slabs so cured are not acceptable.
3. Ceramic Tile Floors shall be sound, containing no loose tiles or other surface imperfections.
4. Concrete, terrazzo, or ceramic floors which are in contact with the ground, (below-grade) or over an unventilated excavation, are not satisfactory and are not approved.

- **Radiant Heated Floors:**

Suspended concrete, terrazzo, or ceramic tile floors containing a radiant heating system are satisfactory provided that the heating system is designed and operated so that the temperature of the uncovered floor does not exceed 100° F. at any point. Floors which are constructed with light weight concrete, in whole or in part, must be allowed to stand uncovered with the heating system in operation until all the moisture is driven out of this mix.

• Underfloor Preparations:

1. The concrete and terrazzo floors must be dry. The Congoleum-Nairn Moisture Detector TO 110 is recommended to determine the degree of dryness of the concrete. Follow the directions furnished in the detector kit.
There shall be no evidence of surface water.
2. Concrete floors that have accumulated wax or surface dirt shall be cleaned by abrading the floor with a sanding machine equipped with very coarse grit paper until the surface material is removed.
3. Concrete floors may also be freed of these materials by suitable means which shall leave the surface clean and neutral. Always check for proper dryness after this method is used.
4. *Terrazzo and ceramic tile floors must be abraded with a sanding machine to remove surface accumulations to prepare them to receive linoleum.*
5. Metal floors must be clean, free from oil, grease, rust and scale.
6. Concrete, terrazzo or ceramic floors that have been in contact with oil or grease are not satisfactory and are not approved.
7. Small holes, small depressions and expansion joints shall be filled in with a water-resistant, non-shrinking, non-crumbing patching compound and troweled to the proper level. Latex fills are recommended.
8. Metal floors containing plate laps, weld beads or other imperfections can be made smooth by the use of Latex underlacements that conform to Navy Specification MIL-D-003135 A. Follow manufacturer's directions for the application of these materials.
9. Suspended concrete, terrazzo, ceramic tile and metal floors which are covered with sheet linoleum may be re-covered with static conductive linoleum if the old covering is firmly adhered to the floor.

The old floor covering shall be machine-sanded to remove all wax and other surface coatings and to provide a roughened surface to assure adhesion of the new adhesive.

• Application of Materials:

The linoleum and adhesives must be stored in the original packages at not less than 70° F. for at least 24 hours before installation. A temperature of at least 70° F. shall be maintained in the area receiving the installation for 24 hours prior to, during, and for 24 hours after the installation is completed.

Install linoleum on floors thus prepared by scribing and cutting it to fit the room accurately and neatly and with the fewest possible seams. Allow sufficient lap at junction of sheets to permit seam cutting.

When the linoleum is properly fitted, tube half the sheet at a time and spread the adhesive with a fine notched trowel at a rate of 120 square feet per gallon. Use Congoleum-Nairn Green Label Paste SU-22 to cement the Static Conductive Linoleum to the underfloor. Congoleum-Nairn "Three-Sixty" SU 360 Adhesive must be used if the underfloor is terrazzo, ceramic tile or metal.

Congoleum-Nairn "Three-Sixty" (SU-360) Adhesive must not be stored or shipped at temperature under 35° F.

Embed the linoleum in the spread adhesive and roll with a 150-lb. roller in both directions, starting in the middle of the sheet and rolling outward to expel any air trapped under the linoleum and to embed it thoroughly in the paste.

Seams shall then be cut to produce a neat, workmanlike seam.

To eliminate the possibility of decoration variance between adjacent sheets, every other sheet should be reversed so that abutting edges are from same edge of the roll.

• Water Resistant Seams:

Where specified, or when the installation will be exposed to abnormal amounts of surface water the seams and edges can be made water-resistant by using Congoleum-Nairn "Three-Sixty" Adhesive spread on the floor for approximately 3" from both sides of each seam and for 3" along the walls.

This procedure is recommended where CN Green Label paste is used as the adhesive, over suspended concrete sub-floors.

ON-GRADE CONCRETE, TERRAZZO, CERAMIC TILE FLOORS

The following specification is for the installation of Congoleum-Nairn Static Conductive Linoleum on on-grade concrete slabs. Specific requirements for the slab construction are given which will prevent penetration of ground moisture and water vapor. On receipt of a certification in writing by Congoleum-Nairn Inc. from the architect or builder that these requirements have been met, Congoleum-Nairn will guarantee the installation according to its current policy provided that the installation instructions that are also part of this specification are followed.

FLOOR COVERING. The floor covering shall be 1/8" Congoleum-Nairn Static Conductive Linoleum. Patt . . .

ADHESIVE: The adhesive for cementing these floor coverings to on-grade slabs constructed according to this specification shall be Green Label Paste SU-22 or "Three-Sixty" Adhesive can be used as specified. "Three-Sixty" Adhesive must not be stored or shipped at temperatures less than 35° F.

• Underfloor Construction — On-Grade with Membrane

The on-grade slab to serve as an under floor for these floor coverings shall be constructed so that ground moisture and water vapor will not penetrate it. This is accomplished by:

1. Laying a draining pad of crushed stone or gravel not smaller than 3/4" at least 4" thick on the prepared subsoil.
2. In certain areas, where local FHA has been obtained, a drainage pad of sand is permitted.
3. Covering the drainage pad completely with an *impermeable membrane*. This membrane shall conform to Federal Specification UU-P-147b Paper; Building, Waterproofed, Class A and shall have permeance of not over 0.5 perm as determined by tests made according to ASTM Method E-96-53T. The membrane shall be installed according to the manufacturer's

directions. It must cover the entire drainage pad. It must be fitted closely to vertical projections such as pipes and it must be turned up at side walls to protect the edge of the slab against ground moisture.

Care must be taken to prevent rupture of the membrane. A thicker, stronger membrane is urged where this possibility exists.

- Pouring on this prepared base a concrete slab of nominal 4" thickness. The concrete mix or other concrete requirements are not listed in this specification. It is required, however, that the slab shall be steel trowel finished to a smooth plane surface and properly cured. The finished surface must be substantially above the surrounding grade level, 5" to 6". If curing compounds are used, they must be of the type that can be removed by abrasion. Curing compounds of an oily or waxy nature are not satisfactory and slabs so cured are not acceptable.

• Radiant Heated Floors:

Concrete floors as specified above and containing a radiant heating system are satisfactory provided that the heating system is designed and operated so that the temperature of the uncovered floor does not exceed 100° F at any point. Floors constructed with light weight concrete, in whole or in part, must be allowed to stand uncovered with the heating system in operation until all the moisture is driven out of the mix.

• Underfloor Preparations:

1. The concrete floor must be dry. The Gold Seal Moisture Detector TO-100 is recommended to determine the degree of dryness of the concrete. Follow the directions furnished in the detector kit.
There shall be no evidence of surface water.
2. Concrete floors that have accumulated wax or surface dirt shall be cleaned by abrading the floor with a sanding machine equipped with very coarse grit paper until the surface material is removed.
3. Concrete floors may also be freed of these materials by suitable means which shall leave the surface clean and neutral. Always check for proper dryness after this method is used.
4. Small holes, small depressions and expansion joints shall be filled in with a water resistant, non-shrinking, non-crumbling patching compound. Latex type is recommended and troweled to the proper level.
Plaster type patching compounds are not satisfactory and must not be used.
5. Concrete floors must be swept thoroughly with a hand brush or vacuum cleaned to remove dust immediately before the application of adhesive.

• Application of Materials:

The linoleum and adhesives must be stored in the original packages at not less than 70° F. for at least 24 hours before installation. A temperature of at least 70° F. shall be maintained in the area receiving the installation for 24 hours prior to, during, and for 24 hours after the installation is completed.

Install Static Conductive Linoleum on floors thus prepared by scribing and cutting it to fit the room accurately and neatly and with the fewest possible seams. Allow sufficient lap at junction of sheets to permit seam cutting.

When the linoleum is properly fitted, cube half the sheet at a time and spread the adhesive with a fine notched trowel at a rate of 120 square feet per gallon. Use Congoleum-Nairn Green Label Paste SU-22 to cement the linoleum to concrete or old linoleum.

Use Congoleum-Nairn "Three-Sixty" SU-360 Adhesive to cement the linoleum to terrazzo, ceramic tile floors.

Congoleum-Nairn "Three-Sixty" SU-360 Adhesive must not be stored or shipped at temperature under 35° F.

Embed the linoleum in the spread adhesive and roll with a 150-lb. roller in both directions, starting in the middle of the sheet and rolling outward to expel any air trapped under the linoleum and to embed it thoroughly in the paste.

Seams shall then be cut to produce a neat, workmanlike seam.

• Water Resistant Seams:

Where specified or when the installation will be exposed to abnormal amounts of surface water, the seams and edges of linoleum cemented with Green Label paste can be made water-resistant by using Congoleum-Nairn "Three-Sixty" SU-360 Adhesive spread on the floor for approximately 3" from sides of each seam and for 3" along walls.

This procedure is not necessary when Congoleum-Nairn "Three-Sixty" Adhesive is used.

General Installation Instructions

When a water resistant adhesive is recommended, "Three-Sixty" SU-360 for the total installation, a longer set up time is required than would normally be needed with linoleum paste. This results in a slight expansion in width of the material. A simple method of minimizing this problem is to install alternating sheets one day and follow up the next day with the drop in sheets. The opening between sheets should not be more than 70". For example, on a three breadth job, install sheet 1 & 3 leaving a spread between sheets of not more than 70". This will permit full expansion of these two sheets overnight. Install sheet #2 the following day centering same in the opening so as to trim off approximately 1" from both edges. Allow a slight opening (1/64") between sheets if "Three-Sixty" Adhesive and this practice is used. (See Isometric drawing on page 15).

Thoroughly sand bag all seams for a period of 12 hours. This is very important where waterproof adhesives are used at seams or as a total adhesive.

Avoid using the blade of the linoleum knife or the head of a hammer to sub down seams. Always use a small seam roller to bring seams to an even plane.

All floor coverings under heavy duty service are subject to occasional damage causing replacement of all or part of the area. In the case of Static Conductive Linoleum this damage can be caused by movement of heavy equipment in a confined area, faulty or damaged casters on heavy equipment, spillage, impact of dropped equipment, damage or loss of protective rubber caps on tubular legged furniture, suture clips imbedding into the floor, etc. Any or all of which take a heavy toll on any flooring.

Since this damage generally occurs in the center sheet of the average size operating room or that piece on which the operating table rests, it is recommended that this sheet in the original installation (and in fact, if room measurement allows, all the 6 foot wide pieces to be installed) be reduced in width to 70 inches maximum. This practice helps to provide for insertion of a new sheet to replace a damaged one when necessary and allows enough material for properly fitted seams at both edges.

• Cleaning of Floors:

Immediately after the installation is complete, the surface of the floor shall be cleaned thoroughly. Spots of Green Label paste can be removed by wiping with a damp cloth. Spots of Congoleum-Nairn "Three-Sixty" Adhesive, if fresh, can be removed by wiping with a damp cloth, if dry, by rubbing lightly with fine steel wool and soap.

Linoleum installed while construction work or repairs are in progress shall be covered and protected with suitable building paper.

• Caution:

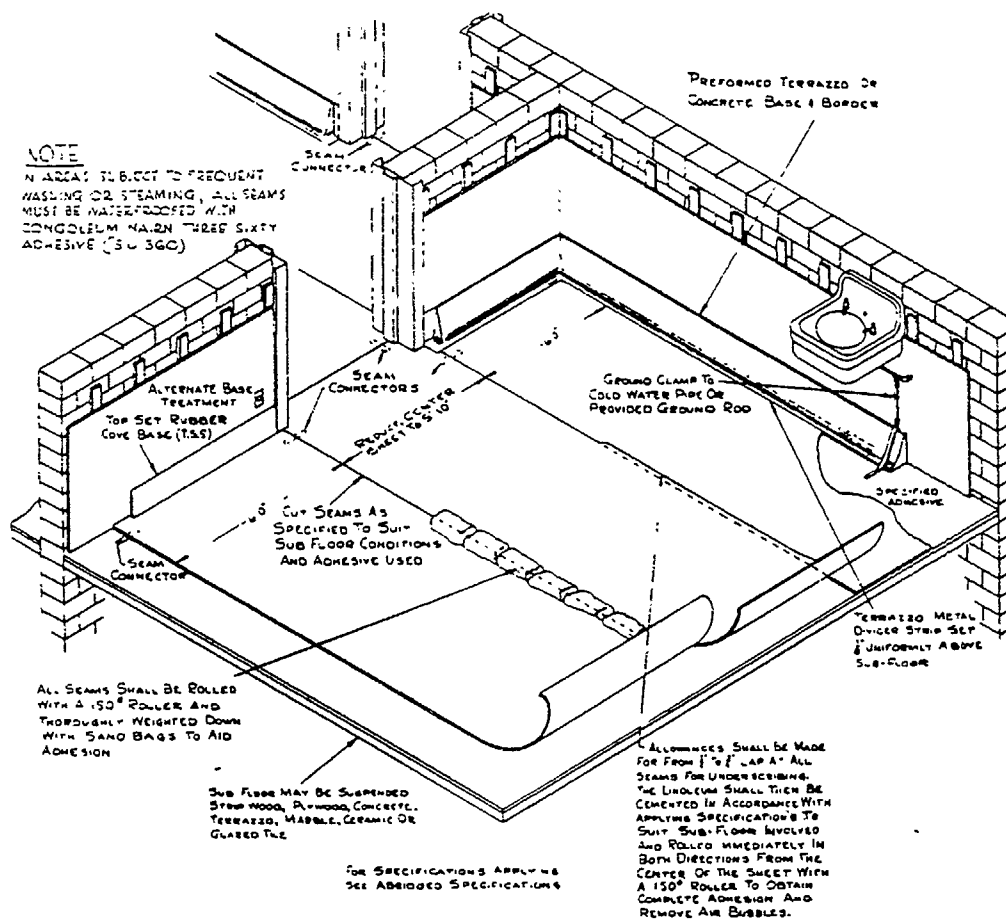
Where possible, avoid placing heavy static loads on newly installed static conductive floors for a period of 24 hours after completion of installation. Check all casters and glides on equipment for damage and to make certain that they are constructed of conductive material so that equipment is properly grounded to the static conductive linoleum.

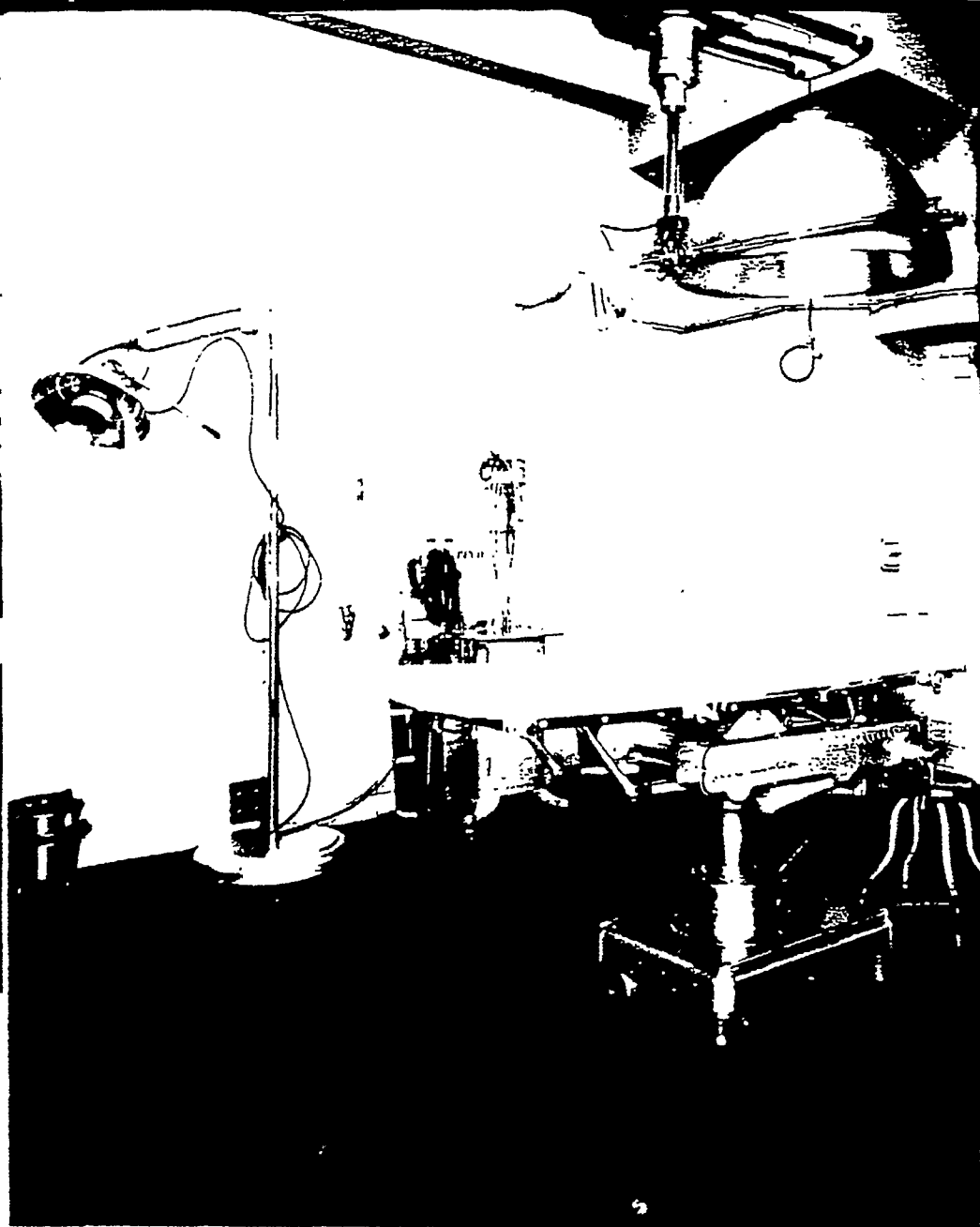
• Base Treatment:

There are several types of base treatment specified in hospital operating rooms and other types of hazard area rooms.

1. *Top Set Rubber on Vinyl Cove Base.* This type of base is installed after completing the installation of the Static Conductive Linoleum which should be fitted net to walls to avoid surface moisture seepage at this point. The top set base should be installed to vertical walls with Congoleum-Nairn "Three-Sixty" Adhesive (SU-360).
2. *Pre-formed Terrazzo Cove Base.* This type base carries a $\frac{3}{4}$ " inside cove radius and it is difficult to fit the Static Conductive Linoleum properly. Proper application of the cove base should provide a $\frac{1}{8}$ " recess at the point where the terrazzo base meets the sub-floor. This recess should be bound with a terrazzo metal divider strip to which the linoleum is fitted.

- 3 *Safety Pre-formed Beveled Base*. This type beveled base is generally found in conjunction with the sub-floor and tapers upward at approximately $+5^\circ$ to the wall. Designed to act as a stop for wheels or hospital carts, thereby avoiding damage to wall surfaces. This type base may be covered with Static Conductive Linoleum and capped at top edge with standard floor bonding strip.
- 4 *Self-Cove Base*. This specified type installation can be accomplished by covering the Static Conductive Linoleum up both sides and end walls in one piece . . . for installation procedures for accomplishing this type self-cove installation, see Congoleum-Nairn booklet, *How To Install Self-Coved Flooring* (B-1365) .

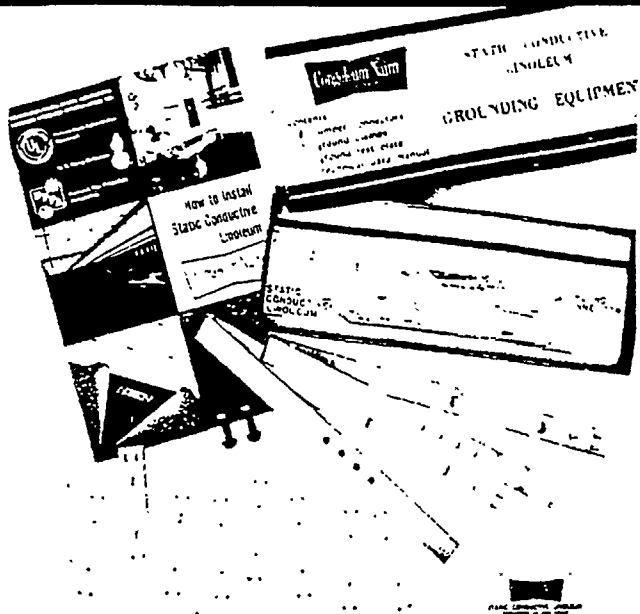




The Boston City Hospital recognizes the value of Static Conductive Linoleum floors in the Dowling Surgical Building where approximately 20,000 sq. ft. has been installed throughout its operating rooms and adjacent working areas.

Grounding Equipment

The Grounding Kit pictured above is packaged with every full roll of Congoleum-Nairn Static Linoleum. Placed in the core of the roll, it contains 8 seam jumper connectors, 2 ground clamps, 1 ground test plate, a installation instruction booklet, plus a simplified sketch detailing method of ground test plate application. The equipment contained in this kit is sufficient to handle a full roll of static conductive linoleum. Should multiple small areas be included and additional kits required, see Congoleum-Nairn dealer price list installation equipment item TO 125.

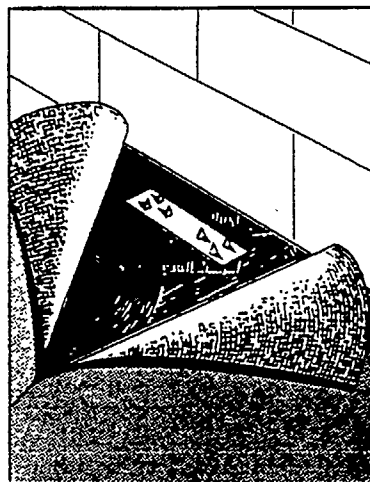


Installing Grounding Connectors

Connectors between sheets of Static Conductive Linoleum

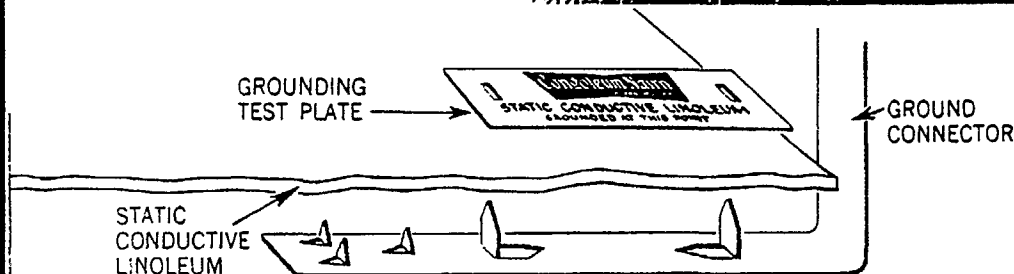
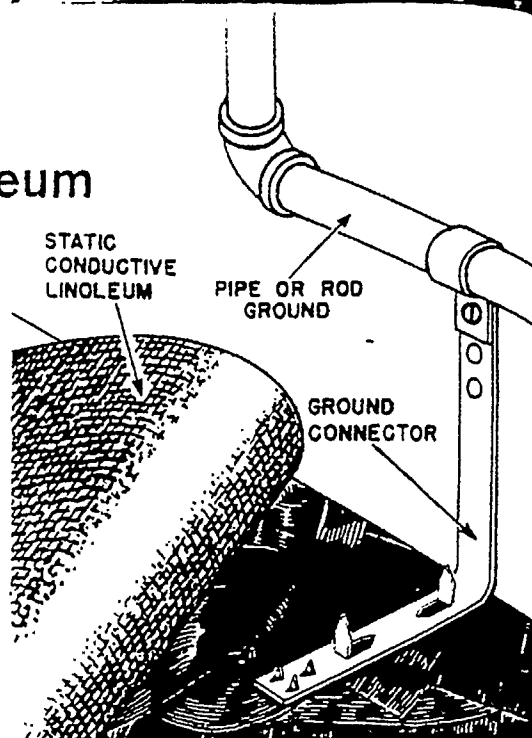
Sheets or parts of sheets of Conductive Linoleum must be tied together at one end of each seam. A non ferrous metal connector is placed under the sheets bridging the seam. Select that end of the seam that is least likely to have heavy moving objects rolled over the connector or where the least amount of traffic will occur.

Eight connectors, as shown, are included in the C-N Static Conductive Linoleum Grounding Equipment Kit. (TO 125)



Grounding Static Conductive Linoleum

Grounding is not mandatory under N.E.P.A. regulations. However, many local ordinances or institution regulations require that Static Conductive Floors be grounded. The most suitable ground is one independent of all building grounds. The floor-covering dealer shall fasten the pronged end of the ground clamp under the linoleum closest to the ground point. The electrician shall make connection of ground clamp to ground pipe or rod. Two ground clamps and one ground testing plate are included in the C-N Static Conductive Linoleum Grounding Equipment Kit. (TO 125)



Maintenance of Static Conductive Linoleum

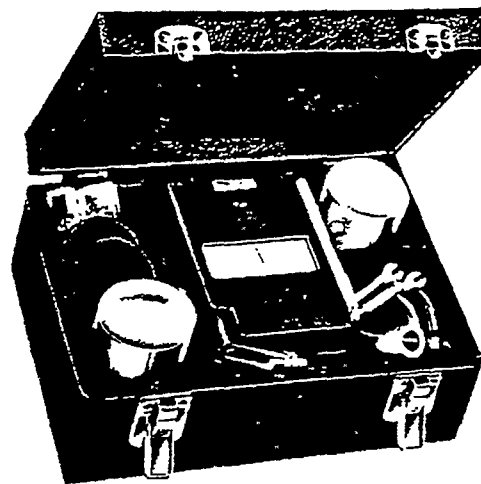
At the time of the installation, Congoleum-Nairn Static Conductive Linoleum has precision controlled properties of electrical conductivity. In order to retain the effectiveness of this linoleum as a static conductive floor covering, it is important that specific methods and materials be used in maintaining the floor. It is specifically recommended that only the maintenance materials and methods of the Walter G. Legge Co., Inc., 101 Park Avenue, New York, N. Y., be used to maintain Congoleum-Nairn Static Conductive Linoleum. The Walter G. Legge Co. maintains offices in many cities throughout the country to service your floor of Congoleum-Nairn Static Conductive Linoleum.

During sterilization periods or for day to day maintenance wash the Static Conductive Linoleum with Nairn Linoleum Cleaner, mild soap and water or the necessary periodicals and warm water.

If polishing of the Static Conductive Linoleum is required, accomplish by using dry fine steel wool pads on a power driven machine. This will produce a satin sheen. Never use wax of any type.

Testing the Finished Static Conductive Linoleum Floor

The floor shall be clean and dry and the area shall be free of explosive gas mixtures. Each electrode shall weigh 5 lbs. and shall have a dry, flat, circular contact area, 2½" in diameter, which shall comprise of a surface of aluminum or tin foil 0.0005 to 0.001 inches thick backed by a layer of rubber ¼" thick. The testing unit shall be a calibrated ohm meter with a normal output voltage of 500 volts D.C. In order that this instrument function in areas requiring testing below 25,000 ohms, it is advisable to secure an ohm meter calibrated from 0 ohms to 1,000,000 ohms (1 megohm.) An ohm meter filling this requirement is available from the Herman H. Sticht Co., Inc., 27 Park Place, New York 7, New York, and is listed as the Sticht Conductivity test kit model F2. The accompanying photograph pictures the unit for you.



Continuing resistance tests are the responsibility of the operating personnel of the area, whether it be hospital, arsenal or solvent loading plant. To meet suggested requirements, the area shall be tested several times a year at regular intervals and a record of these readings be kept so as to note any change in resistance readings. To meet N.F.P.A. requirements measurements shall be taken in 5 or more locations in each room.

Congoleum-Nairn Static Conductive Linoleum is available in a range of 4 patterns and in a resistance range to meet both the requirements of the National Fire Protection Association and the U. S. Army Ordnance Department. These are the most important links in the chain of well maintained safety precautions and requirements. Strict adherence to the foregoing installation specifications and recommendations will assure a trouble free Static Conductive floor.

HAZARD AREA FLOORING

Congoleum-Nairn Static Conductive Linoleum is a life saving floor. Therefore, care should be exercised during its installation to secure a perfect installation. Strict adherence to the enclosed specifications is recommended. Should unusual sub-floor conditions or area requirements pose a problem, feel free to write the Installation Department.

Congoleum-Nairn
FINE FLOORS

Installation Department
Congoleum-Nairn Inc.
195 Belgrove Drive
Kearny, New Jersey

FLOOR MAINTENANCE

For complete floor care information on your new shiny vinyl floor, ask your floor covering retailer for the Congoleum "Consumer Flooring Guide" M0166 or write:



Consumer Flooring Guide - M0166

CONGOLEUM CORPORATION

Consumer Services Dept.
196 Belgrave Drive
Kearny, N.J. 07032

Congoleum

CORPORATION KEARNY, NEW JERSEY - 07032
World's Largest Manufacturer of Cushioned Vinyl Floors

HOW TO INSTALL

Easy Does It™

DO-IT-YOURSELF SEAMLESS VINYL FLOORS

Congoleum®

FINE FLOORS

Simple,
step-by-step
instructions
to help you
install 12 and
15 foot wide
cushioned
vinyl floors.



CONGOLEUM EASY DOES IT WIDE WIDTH CUSHIONED VINYL FLOORS HAVE BEEN ENGINEERED FOR EASY INSTALLATION. They are extremely flexible and are highly resistant to chipping, breaking or tearing. The 12' or 15' width means a smooth, seamless flooring installation in many rooms.

So if you are at all handy, join the swing to Do-It-Yourself and save the installation costs. You'll be as proud of the results as you are the savings.

THERE ARE THREE WAYS TO INSTALL "EASY DOES IT" WIDE WIDTH FLOORS. The product and the subfloor will determine which method you should use. The chart below will help you decide the correct installation.

**Easy
Does
It**

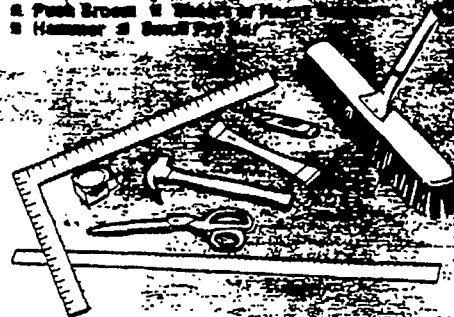
FLOOR COVERING GUIDE CHART

The chart will guide you as to which type of installation is recommended for your subfloor and the product you have selected.

TYPE INSTALLATION...	1. Without Adhesive	2. Perimeter Adhesion	3. Full Sheet Adhesion
TO BE USED ON...	Any type subfloor	Concrete subfloor only, bare or covered with old floor covering	New plywood or underlayment — bare concrete
Cushionflor®	YES	NO	NO
Cushionflor Supreme®	YES	YES	YES
The Now Floor®	YES	YES	YES
Prestige™	YES	YES	YES
Highlight®	YES	YES	YES
Spacemaker®	YES	YES	YES

Below are the tools that you will probably need for installing the floor. Does It Floor:

- Straight Edge (Leveling) & Spirit Level
- Carpenter's Square or Metal T-Square
- Push Broom & Broom or Floor Sweeper
- Hammer & Nail Pliers



FLOOR PREPARATION

All furniture, appliances or anything not stationary should be removed from the room.

Carefully remove all floor moldings such as quarter round or cove base. This you will want to save and re-install after the flooring material has been installed.

Check your existing subfloor to be certain it is dry, clean and free of wax or any other foreign materials. Drive flush any protruding nails and re-nail any loose ones.

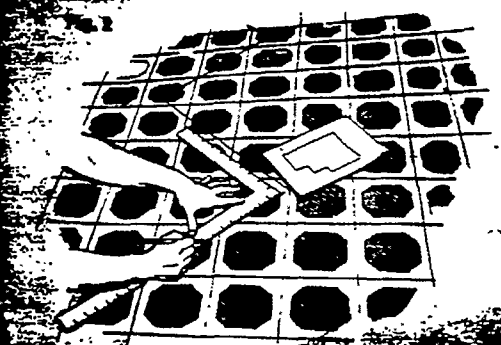
Any cracks in the subfloor should be filled with a patching compound.

Keep in mind that any dirt or messiness in the subfloor will be reflected in the finished flooring.

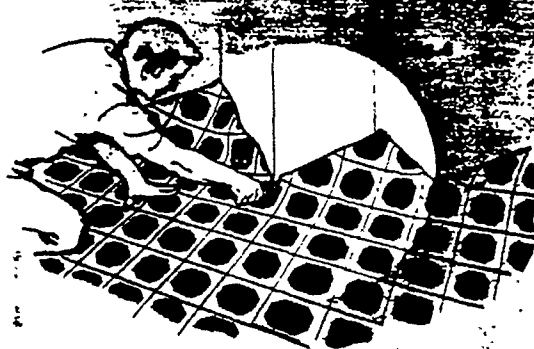
The subfloor should be thoroughly cleaned completely free of all dust. For best results, the room should be swept. Subfloor, flooring material and room temperature should be at 70°F.

FITTING FLOORING TO ROOM

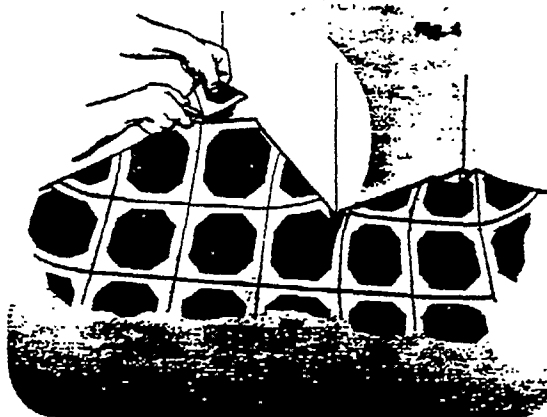
A sketch should be made of the room programming all cut outs. Lay out the flooring material in a convenient larger room such as a garage or basement. Transfer the room measurements to the flooring material & size. (Fig. 2) Cut out with sharp knife or heavy scissors or shears.



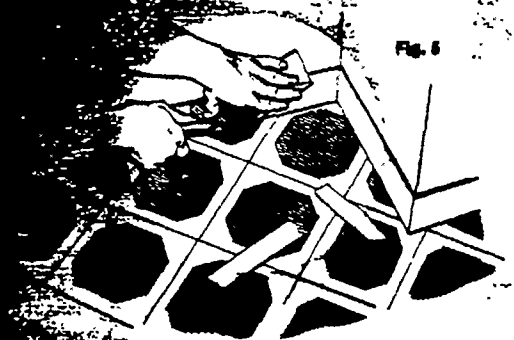
Transfer the flooring material to the wall and install it and lap the 3" excess over the wall. Make a relief cut in outside corners and transfer the lapped-up material to where it meets the wall again. (Fig. 4)



Then, on inside corners, gradually cut down the flooring material as in (Fig. 5) until it fits into the corner.

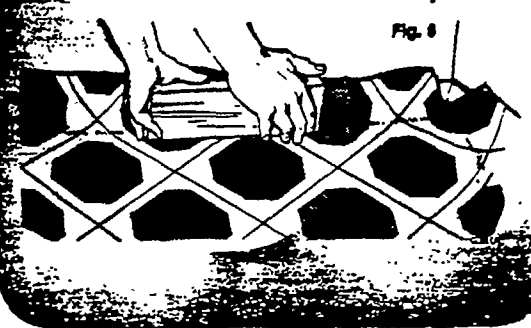


Use a sharp pointed utility knife, held at an angle, to trim the flooring material down to the wall and let it lay flat. (Fig. 5)

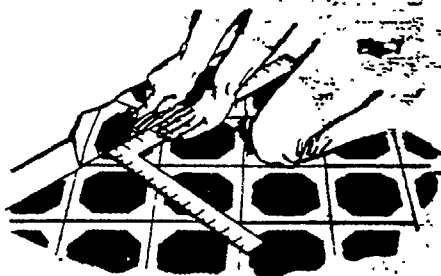


The maximum allowable gap between the wall and baseboard should be about $\frac{1}{8}$ " less than the thickness of the moulding that is to be re-applied after the flooring is installed. Door trims should be fitted next as they will receive no moulding.

Another method of trimming down the material lapped up on the walls, is to press it into a right angle where floor and wall meet. Use fingers or piece of 2" x 4". (Fig. 6)



Then lay a metal yard stick or carpenter's square as close to the wall as possible and cut along this with a sharp utility knife. (Fig. 7)



APPLYING ADHESIVE (full sheet adhesion)

After the floor covering has been fitted, the next step is to adhere it to the subfloor.

Roll the material face in or lay it back on itself so that about one-half of the subfloor is exposed. Using "Easy Does It" Foam Adhesive, apply a band of adhesive around the perimeter of the subfloor about one inch from the wall and then bands in the body of the subfloor about 12 inches apart the length of the room. (Fig. 8)

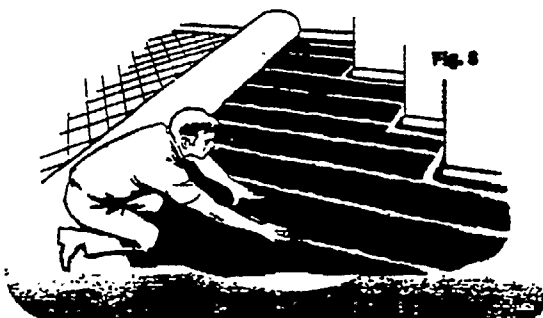
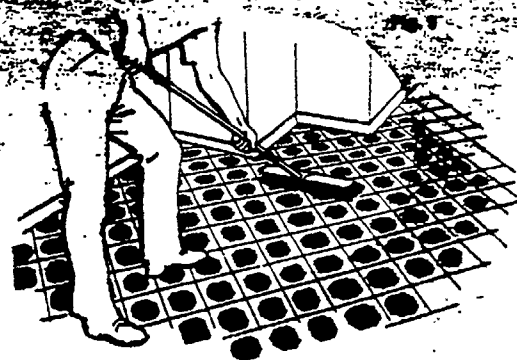


Fig. 8

Roll the material back into place and push it down with an ordinary push broom. Then, when the flooring material is in place, spread the adhesive over the entire floor surface so that all air pockets are eliminated. Repeat the same procedure on the second half of the sheet. Replace moldings and cover open edges of the floor covering at doorways with metal trim.



APPLYING ADHESIVE (perimeter adhesion)

On concrete subfloors that are either bare or covered with smooth, non-cushioned, well bonded flooring material, you can install by the perimeter adhesion method. If you are going to cover an old floor covering, apply a strong solution of Spic and Span or dishwasher detergent about 8" from the wall around the perimeter of the room when preparing the

will split leaving ½ the felt adhered and the balance ½ will be on the repair flooring material. If the repair material is coming from a hidden area in the manufactured home, it will pull up from the subfloor delaminated.

Cut the repair material slightly larger than the design unit to be replaced. Position the repair material for an exact pattern match and hold in place with masking tape. Using the small square or straight edge as a guide, cut through both layers of flooring material with the straight bladed utility knife. Remove the damaged flooring wearlayer within the cut area. It will delaminate leaving a layer of felt adhered to the subfloor of the manufactured home. This should not be removed.

Apply a light coat of SU23 White Paste with your finger to the back of the repair material. Care should be taken not to get adhesive on the cut edges. Insert the repair piece and roll thoroughly with a small hand roller, bringing the wearlayers level. Clean the area of any adhesive and then seam seal all cuts with Congoleum Seam Sealer. (Congoleum Seam Sealer is available from your Mobileflor supplier.)

REPAIRING OVERALL DESIGNS

On overall patterns, a diamond shaped cut will make the least visible repair. First, tape the material to be used for the repair over the damaged area. Then following a small straight edge, with a sharp utility knife, cut through both layers of flooring material in a diamond shape to fully remove the damaged spot. Peel out the area to be removed; paste the back of the repair piece, insert and roll with a hand roller. All cuts should then be seam sealed.

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