

# FLOOR UNDERLAYMENT beneath your new flooring 

If your kitchen floor looks like someone stabled horses on it all summer, if your bathroom floor tile is broken and chipped, or if the pattern went out of style before man walked on the moon, you may wish to replace your flooring material. To do the job right, however, you need to consider more than the color, pattern, and composition of your new flooring.

Before installing any new flooring material, make sure that the surface below it is intact and solid. If you try to put tile or linoleum directly on top of an existing tile floor, or over a floor that is flexing, the new flooring will quickly crack and break up. (This is particularly true when installing ceramic tile; if the floor beneath ceramic tile is not rigid and solid, the tile will crack.)

The usual way to remedy this situation is to install new floor underlayment. The underlayment will provide a clean, solid surface on which to install the new flooring. In most areas, your underlayment will consist of one or more sheets of plywood. As an alternative, especially in a bathroom or other water-prone area, you may wish to use concrete backer board, a kind of "drywall" impregnated with cement that provides a rigid, waterproof base.

If your kitchen floor is covered by carpeting, scrape off as much of the carpet or pad as practical, but you don't have to overdo it - small amounts of residue won't have too much effect when you put down the underlayment. For tile floors, remove any loose tiles and fill in the spaces they leave with underlayment crack filler (a powder which is mixed with water to a plaster-like consistency). Spread it into the spaces where the tiles were, and smooth it with a large putty knife. It will harden quickly.

After the crack filler has hardened, you can start installing the underlayment. First, if you have baseboard molding around the room, remove the bottom piece (usually called "quarter-round molding"). Then, nail $1 / 4$ " mahogany plywood right on top of your

## Underlayment nail

 existing floor. (This material will work well as underlayment, unless you have a particularly weak or "spongy" floor, or if you intend to install ceramic floor tile, which needs a stronger base - see below.) Mahogany plywood is smooth on both sides. You'll find it readily available and fairly inexpensive.To nail down the plywood, use underlayment nails, which have a smaller head and rings on the nail shank that prevent them from working loose. Drive nails throughout the entire sheet of plywood, every 6 to 8 inches (see illustration on next page), to ensure the floor is down solidly. If you have a very flexible floor, you can use some construction adhesive to help glue down the underlayment. You'll still need to use nails, but the glue will help stop the wood from flexing.

After you are done nailing, take some more underlayment crack filler and fill in all the joints where the plywood sheets meet and at the edges of the room. Any other gaps should also be filled (such as around door jambs), so you have a good solid base. The crack filler can be sanded after it is dry, to create a really smooth surface. After a good sweeping up, you will be ready to start laying your new floor.

If you will be installing ceramic tile, you will need a firmer base. You can use two sheets of plywood for your underlayment, laid at right angles to one another and nailed down as described above. Or, you can use concrete backer board as your underlayment material, cutting the sheets to size with a carbide scoring tool or a circular saw with a masonry blade, and then gluing the pieces in place with construction adhesive or thinset mortar.

Remember that adding the underlayment will raise the height of your new floor. You may need to shave off the bottoms of doors, add an extension flange on your toilet, and/or install a special threshold molding (i.e., "carpet bar" or "tile strip") at each edge of the floor to bridge the differing heights in adjacent rooms.

Whether you use vinyl tile, linoleum, ceramic tile, or carpet, however, the time you spend getting the floor ready will help ensure a good quality, long-lasting job.

## Approximate nail spacing for plywood underlayment



## One $4 \mathbf{X} 8$ sheet $=\mathbf{3 2}$ square feet

