

# HERE'S HOW



## FLOOR SANDING

Here's how you can prepare, sand, finish and maintain all types of wooden floors including parquet, pre-finished and laminates. Follow the Hiretech Here's How guide and you will enjoy the satisfaction of a job well done and the natural beauty of a wooden floor that will last for years.

### PLANNING

Hiretech products combine to bring you a complete floor sanding and finishing system for all types of wooden floors. It's easy to get professional results with the best floor sanders and finishes available.

Plan ahead, you will need to have enough free time to sand and finish your floor. The time needed will depend upon the size and condition of the floor. As a rough guide a 6m x 6m (20' x 20') solid hard wood floor in average to good condition that is sanded back to new wood will take about 3 days to sand and finish. Remember to contact your local hire shop and reserve the sanding equipment you need to hire in advance. Also choose the Hiretech PFF Floor Finish for your floor and make sure your hire shop has adequate stock to meet your needs.

### TOOLS

You will need some or all of the following tools and accessories to help you sand and finish your floor with. Hammer, nail punch, personal protection equipment including dust respirator, eye protection and gloves. Also masking tape, carpenter's pencil, paint tray or bucket, applicators, brushes and tack rags. If you need any other tools, plan ahead and make sure you have all you need to prepare, sand and finish your floor.

### PREPARATION

Remove all furnishings and drapes from the room. Tape up cupboards and doors to seal against dust. Remove old floor coverings and loose nails, staples, screws and any other unwanted fixings. Fix loose or broken boards and parquet. Take care to match any replacement pieces with the existing floor. Small gaps and holes can be filled before the last part of the sanding operation. Take care to get a good match with

the surrounding wood. Fillers will take up finishes and stains differently to the wood. If in doubt always test making sure the filler is compatible with the stains and finish you intend to use. Larger gaps between boards can be filled with a fillet of matching wood. Glue the edges of the fillet and tap into place then plane down level with the floor surface.

Punch down all exposed nails and any other hardware below the floor surface. Repeat as necessary as you sand the floor, if nail heads become exposed. Remove heavy wax, grease and dirt deposits by hand. Sweep the floor clean immediately before sanding.



Warning - sanding exposed nails can produce sparks creating a fire hazard in the sander dust bag, tear abrasive sheets and discs and damage the floor sander.

### FLOOR SANDING TECHNIQUE

#### Drum Floor Sander

Load the sander with abrasive making sure that it is skin tight around the drum. Loose sheets will tear. Place the sander on the right hand wall (unless you are making an angled cut on uneven floors) with about two thirds of the floor in front of you. Start the sander with the drum off the floor then walk forward at an even pace and ease the drum to the floor. As you near the end of the pass, gradually raise the drum off the floor. Practice before turning on the sander.



Warning - never bounce the sanding drum or dwell in one place, as this will sand dips and hollows in the floor.

Cover the same path you made on the forward cut by pulling the machine backwards. Ease the drum to the floor as you begin the backward pass until you reach the original starting point then lift the drum off the floor. Move the sander to the left and overlap the first cut by about 7cm (2<sup>3</sup>/<sub>4</sub>" ). Repeat the forward and backward passes moving progressively to the left as you complete each forward and backward pass. When two thirds of the floor is sanded, turn the floor sander around and sand the remaining third in the same way. Overlap the one-third area by 0.6m to 0.9m (2' to 3') with the first two-third area to blend the two areas together.

### **Disc Floor Sander (Edger)**

Load the abrasive disc making sure the retaining bolt is tight. Start the edger with the disc off the floor then lower the disc to the floor as you move the edger to one side. Sand in the direction of the grain along the walls, moving the edger from side to side. End sanding strokes should be semicircular. Blend the edges into the area sanded by the drum sander.

### **Orbital Floor Sander**

Load the abrasive pad and sheet. Start the sander, move immediately and sand in the direction of the grain using the same technique as the drum floor sander. For difficult to reach areas use the disc floor sander with a fine grit abrasive, or sand by hand.

### **Hand Sanding**

To sand difficult to reach areas scrape and sand the floor by hand. Use a scraper to remove old finishes, always scraping in the direction of the grain, and then sand by hand using the same grit abrasive as you finished with when machine sanding.

## **TRICKS OF THE TRADE**

- When sanding a floor always aim to remove the minimum amount of wood. Use only as coarse an abrasive as needed. Over sanding reduces the life of the floor and dramatically increases the work needed to complete the job.
- Always test sand with a medium to fine grit abrasive first. If this will remove old finish and generally level the floor on the first cut, you do not have to use the more aggressive coarse grit abrasives.
- If the floor is uneven, cupped or crowned make sure there is no moisture problem.
- Make the first rough cut at 45° to the direction of the flooring to obtain a basic level.
- For new floors or for floors in buildings that have been left without heating always let the floor acclimatise for 1 to 3 weeks to its normal moisture content before sanding and finishing.
- Check the thickness of the floor before sanding by removing a skirting board, baseboard, moulding or heating register so you can measure the edge of the flooring. This is very important for pre-finished and laminate floors.
- If the floor has a hollow or deep scratch, make multiple passes forward and backwards across the area starting the first pass at a 30° angle to the hollow or scratch. Finish sanding in the direction of the grain. Only use fine grit abrasive.
- Use a soft lead carpenter's pencil to mark exposed nails, excessive scratches, holes, etc.

- When changing from one abrasive grit to the next, do not skip more than one intermediate grit.

## **FLOOR TYPES**

### **Sanding Plank or Strip Floors**

*Floors in good condition* - when the floor is in good condition - no uneven edges, cupping or crowning of planks and strips - start sanding in the direction of the planks or strips, with the wood grain. Start with a coarse or medium grit abrasive. Complete the first cut with the drum floor sander then sand up to the baseboards and door thresholds with the edger, using medium grit abrasive, blending the edges in with the main floor area. Sweep the floor. Using a medium grit abrasive sand the main floor area with the drum sander and then complete the floor with the edger using a fine grit abrasive. Sweep the floor. Finish sanding the main floor area with the drum floor sander using a fine grit abrasive.

*Uneven floors* - when the floor is uneven sand diagonally at 45° across the room in both directions using coarse grit abrasive. Only make one cut on both diagonals, this will achieve a basic level. Now complete the floor as for a level strip or plank floor. Use the same grit abrasive as was used on the 45° cut for the first cut parallel to the planks or strips.

*Floors with an existing finish* - when refinishing a floor remove as little of the existing surface as possible. If only a light sanding is required to prepare the floor for refinishing use the orbital floor sander. If the floor is badly marked and scratched and has to be sanded back to new wood it may be necessary to use a coarse open coat abrasive to remove the old finish. These abrasives will not clog with the old finish but take care, as they are very aggressive. Always try a medium grit paper first, particularly on a diagonal cut. If 90% of the old finish is removed and the floor is generally levelled, you do not need to use coarse grit abrasive.

### **Sanding veneered, laminated and thinner floors**

Use the orbital floor sander for veneered and laminated floors or thinner floors that may have been subject to repeated sanding. The orbital sander will remove old surface finishes and prepare the floor for refinishing. Sand the floor using the same method as a strip, plank, or parquet floor. If the floor has deeper scratches or marks these should be sanded out by hand and blended in with the main floor.

### **Sanding Parquet and Block Floors**

The grain of the wood will run in a number of directions so sand the floor in the direction of the main source of natural light in the room. If there is no source of natural light sand in the direction of the longest side of the room or, if the room is square, in the direction the furniture is laid out and how people normally use the room. This technique will help mask any imperfections

in the floor. Complete the sanding operation as detailed for plank or strip floors.

### SAFETY

- Follow all instructions carefully; always wear personal protection equipment as directed.
- Make sure the room is well ventilated at all times.
- Never smoke when sanding or finishing a floor.
- Keep power cables clear of the floor sanders at all times.
- Take care to dispose of sawdust safely, never throw sawdust into a fire or incinerator.
- Never leave a floor sander unattended with sawdust in the dust bag. Mixtures of sawdust and old finishes are subject to spontaneous combustion.

### FINISHING

Finishing a wooden floor is a very satisfying and rewarding job. As with sanding its important to be well prepared and to make sure you have ample time to complete the job. This includes leaving the floor for the right amount of time before using it – after all your hard work you don't want to scratch and mark the floor by using it too soon.

Hiretech Permanent Floor Finish (PFF) is a range of modern, environmentally friendly wood lacquers for all types of wooden floors and interior wood surfaces. Traditional qualities blended with modern technology make PFF the ideal choice for the professional and homeowner. Take time to choose the right PFF for your floor and remember to always follow the instructions carefully.

### PREPARATION

Allow ample time to apply the finish, it's best to start at the beginning of the day to give yourself time to apply the number of coats of PFF required all in one day. If the area to be finished cannot be completed in one day you will need to lightly sand the floor before applying another coat the next day.

Clean up the whole room taking care to vacuum up dust from window frames, skirting boards, baseboards, doorframes etc. It's a good idea to vacuum several times to allow any airborne dust to settle so the room is as clean as possible.

Inspect the floor carefully. Spot fill missed cracks and nail holes. Allow the filler to dry hard, then hand sand or use a small palm sander with the same grit as final machine sanding.

Now remove all traces of dust from the floor by first vacuuming and then wiping over with a Hiretech Tack Rag. Only a tack rag will remove all the dust from the grain of the wood for a perfect finish.

### PFF APPLICATION GUIDE

Location	RESINCOTE GOLD	AQUACOTE GOLD	AQUACOTE
Kitchen	✓	✓	
Bedroom	✓	✓	✓
Hallway	✓	✓	✓
Dining Room	✓	✓	✓
Living Area	✓	✓	✓
Play Area	✓	✓	✓
Commercial	✓	✓	✓
Features			
Non Yellowing	✓	✓	✓
Resin Based	✓		
Oil Based		✓	
Water Based		✓	✓

### STAIN APPLICATION

Always test the compatibility of the stain with the floor finish you are going to use. Stains may affect the drying and adhesion of the floor finish. Carefully follow the stain application instructions and allow to dry thoroughly before applying the floor finish.

### FINISH APPLICATION

Applying PFF is easy; a Hiretech Floor Finish Brush will give the best results and maximize film build. Always test with the number of coats required before full application.

Carefully follow the detailed instructions included on each pack of PFF. On softwoods with water based finishes the first coat will tend to raise the grain of the wood making your nice smooth floor feel rough! This is normal - simply sand between coats of finish using the HTF Orbital Floor Sander with an abrasive pad for a perfect result.

Always recoat within the time specified in the PFF instructions. If this is not possible, lightly sand between coats to ensure perfect adhesion between each coat of finish.

Plan your application so you can exit the room, starting in a corner. Generally you will work with the grain of the wood. Work at a steady pace and do not use too many brush strokes as this will reduce film build and leave brush marks. Let the PFF flow naturally across the floor and find its own level.

### TRICKS OF THE TRADE

- Use a Hiretech Tack Rag to remove fine dust from the grain of the wood that vacuuming alone will not collect.

- Always use a fine white bristle brush, if a stray bristle falls out and is not seen it will not show up as much as a black bristle.
- If you are finishing your floor with a gloss finish apply a satin or matt finish as the first coat. This will act as a tell tail because when it becomes exposed it can be easily seen and you know it's time to refinish the floor. Use a gloss finish for the first coat when the final finish is satin or matt.
- Do not over brush, allow the PFF to flow and find its natural level. This will maximize film build and add life to your floor.
- Always refinish your floor before it is worn through to the wood. If the wood becomes exposed the whole floor will have to be re-sanded to new wood.

## MAINTENANCE

Floors are the hardest wearing surfaces in the home and work place. Take time to protect and care for your floor to help maintain its beauty and prolong its life.

The first and best line of defense for any wooden floor is barrier matting. Matting removes grit and other solids

from footwear. Ideally always remove outdoor footwear and avoid high heel shoes, heavy work boots and soles with nails and steel tips. Use mats and rugs in areas of high traffic.

Sweep and vacuum regularly followed by a damp mop. PFF does not need polishing to keep its good looks - just keep it clean.

Overtime it's natural for floors to dull down, pick-up scratches and marks. Day to day scuffmarks can be removed using a non-abrasive cream cleaner. Refinish your floor before it becomes too worn. The floor finish is designed to provide a wear layer for your floor as well as enhancing the beauty of the wood.

## HELPLINE

For help and information on sanding and finishing your floor or other wood surfaces call the Hiretech helpline in the UK on Tel: 01923 332424 Fax 01923 332425 or E-mail: sales@hiretech.co.uk

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## ABRASIVE GUIDE

### HT8 FLOOR SANDER & HT7 DISC FLOOR SANDER

<b>Abrasive Paper Grade</b>	<b>Application and Floor Type</b>
Grit 24 Open Coat (Coarse non-clogging)	For removing surface coatings from old floors such as varnish, stains and wax polishes. For the rapid sanding and removal of scratches and marks. Sanding level the joints of sub-flooring like particleboard and masonite.
Grit 24 (Coarse)	For the rapid sanding and removal of scratches and marks. Sanding level the joints of sub-flooring like particleboard and masonite.
Grit 40 Open Coat (Coarse/Medium)	For removing surface coatings from old floors such as varnish, stains and wax polishes. For the rapid sanding and removal of scratches and light marks. Sanding level the joints of sub-flooring like particleboard and masonite.
Grit 80 (Medium)	For first sanding of new level wood floors. First sanding after sanding with a drum sander.
Grit 100 (Medium/Fine)	Intermediate sanding of all types of wood floor.
Grit 120 (Fine)	For final sanding of all types of wood floor. First sanding of cork or composition floors. For sanding between coats of solvent based and 2 pack varnishes and lacquers.

### HTF FLOOR SANDER

<b>Abrasive Paper Grade</b>	<b>Application and Floor Type</b>
Abrasive Sheet 40G Open Coat (Coarse)	For the rapid removal of stock and where a deep cut is required. Use on solid raw wood floors. Not recommended for use on factory finished or laminate flooring systems.
Abrasive Sheet 60G Open Coat (Coarse/Medium)	In progression from 40 grade to first sanding on smooth surfaces requiring less stock removal. Removal of stains and old finish from the sub surface of the floor after stripping of surface coatings with 80-grade (medium) abrasive. Use on solid raw wood floors, and floors where an existing stain or finish is to be completely removed from the wood prior to new finish being applied.
Grit 80 (Medium)	Medium stock removal. Rapid removal of surface coatings and finishes. Suitable for all floor types, however, care should be taken on factory pre-finished floors where the integrity of seals and stains should be maintained.
Grit 120 (Fine)	Light stock removal and where only a minor dimensional change is required in the floor surface. First sanding of floors that require re-finishing without the removal of old surface coatings and where the integrity of seals and stains must be maintained.
Grit 180 (Extra Fine)	Negligible stock removal prior to application of finish. Suitable for all floor types.
Abrasive Pad 280G (Finishing)	Preparation for high quality finished surface. Suitable for all floor types. Use to sand between coats of finish especially water based stains and varnishes.
Backing Pad	Flexible backing pad for abrasive sheets.

DO NOT OVER-SAND USE ONLY AS HEAVY GRADE ABRASIVE AS IT TAKES TO DO THE JOB.  
PROGRESS FROM FIRST GRADE USED THROUGH FOLLOWING GRADES TO REMOVE ALL VISIBLE  
SANDING MARKS. DO NOT MISS A GRADE.

**PFF TECHNICAL GUIDE**

	<b>RESINCOTE GOLD</b>	<b>AQUACOTE GOLD</b>	<b>AQUACOTE</b>
<b>Type</b>	Two component, resin based acid cure lacquer.	Single component oil based water-soluble lacquer in a polyurethane dispersion.	Single component acrylic based water-soluble lacquer in a polyurethane dispersion.
<b>Coverage Hardwood*</b>	Two coats 6m <sup>2</sup> /litre	Two coats 5m <sup>2</sup> /litre	Three coats 4m <sup>2</sup> /litre
<b>Coverage Softwood*</b>	Three coats 4m <sup>2</sup> /litre	Three coats 3.3m <sup>2</sup> /litre	Four coats 3m <sup>2</sup> /litre
<b>Wear Resistance</b>	High	Medium to high	Medium
<b>Resistance to Solvents</b>	Very good resistance to common solvents including alcohol, fats and most acids	Good resistance to alcohol and common solvents.	Medium resistance to alcohol and common solvents.
<b>Application Method</b>	Brush.	Brush, lambs wool or synthetic applicator, roller.	Brush, lambs wool or synthetic applicator, roller, paint pad.
<b>Recommended Use.**</b>	New and existing wood floors and interior woodwork, ideal for high traffic areas such as halls, stairs and kitchens. Use on tables, work surfaces, skirting boards and other hardwearing wood surfaces. Not recommended for use on wood treated with wood preservatives.	New and existing wood floors and interior woodwork, ideal for medium to high traffic areas such as halls, stairs and living rooms. Suitable for refinishing most types of factory pre-finished wood and laminate wood floors. Also use on doors, skirting boards and other hardwearing wood surfaces. Do not use in areas with a high moisture content such as bathrooms.	New and existing wood floors and interior woodwork, ideal for low to medium traffic areas such as living rooms and bedrooms. Suitable for refinishing most types of factory pre-finished wood and laminate wood floors. Do not use in areas with a high moisture content such as bathrooms.
<b>Drying Times</b>	Drying times are approximate and are based on an ambient temperature of 20°C. A flow of air is preferable to a sealed room.		
<b>Surface Dry</b>	25 minutes	45 minutes	35 minutes
<b>Hard Dry</b>	1 to 2 hours	1 to 2 hours	1 to 2 hours
<b>Light Use</b>	6 hours	6 hours	6 hours
<b>Fully Cured</b>	7 days	48 hours	7 days
<b>Maintenance</b>	Sweep or vacuum regularly to remove grit and clean using a damp mop. PFF does not need polishing. Scuffmarks may be removed using a non-abrasive cream cleaner. Refinish floor before lacquer wears to bare wood.		
<b>Cleaning</b>	PFF Brush Cleaner.	Water	Water
<b>Flammability</b>	Highly Flammable	N/A	N/A
<b>Volatile Organic Compounds (VOC)</b>	High (25% to 50%)	Low (0.30% - 24.99%)	Low (0.30% - 24.99%)
<b>Hiretech Data Sheet No.</b>	010, 030 and 040	020	050

\* Coverage rates are approximate and will vary depending on condition and type of wood.

\*\* Read instructions on pack and always test before full application.