

Quick Installation Guide



1. After preparing a smooth surface, create a groove in the floor to accommodate the conduit for the floor probe.



4. Cut away sections of the insulation to accommodate the white sealing caps and cables of the element strips as well as the area where the floor probe will be located.



2. Measure the area to be heated and fit the Ecomax-Lite Thermal insulation to the floor securely following the manufacturers instructions.



5. Tape over the cap ends and cables so that they do not move out of position.



3. Roll out the lengths of EcofilmSet and trim to length along cutting line as required. Insulate trimmed ends as per instructions before taping the elements into position, taking care to locate the "cold tails" on the wall nearest the thermostat connection box.



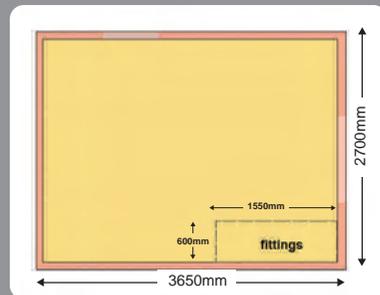
6. Check individual element length resistance using an Ohmmeter. Insert the thermostat floor probe into the protective conduit. A fully qualified electrician must now make the final connections to the mains supply & install the thermostat.

This sample installation is only a guide and should not be used to install EcofilmSet. Full instructions are supplied with the product and must be used to ensure Guarantee validity.

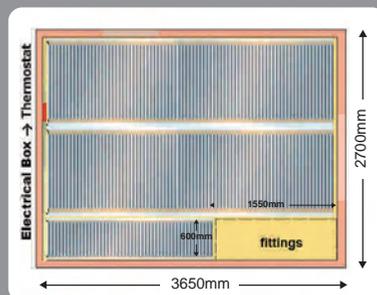
7. Cover the total EcofilmSet installation with a layer of EcofilmSet Polyester Vapour Barrier before laying the chosen final floor covering. Lay the floor covering as soon as possible to prevent damage to the element.



Installation Example: A childs nursery with a laminate floor to be laid



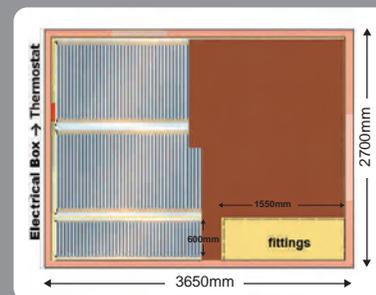
Room dimensions measured out, including fittings



From these sizes we can calculate that we require 2 pieces of 3.5m length and 1 piece at 2m.

Product Selection:

2 x ES13-1035, 1 x ES13-520



Remember the active (heating) portions of the element MUST not overlap each other and the minimum distance from a fixed object or wall MUST not be less than 50mm.

Authorised Distributor:

EcofilmSet is part of the Flexel Underfloor Heating Systems product range by Flexel International Ltd, Queensway Ind Est, Glenrothes, Fife, KY7 5QE, Scotland. Also available: Ecoflex & Ecofloor.

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Web: www.flexel.co.uk Email: sales@flexel.co.uk



The complete underfloor heating solution for all laminate & timber floors.

Bringing Out The Luxury Of A Wood Floor

EcofilmSet provides the luxury of electric underfloor heating to living rooms, bedrooms, hallways, loft conversions and conservatories or almost anywhere a laminate, engineered wood or real timber floor is being laid.

Easy To lay

EcofilmSet, is supplied in 3 different widths (300mm, 500mm and 1000mm) & standard lengths between 2m & 10m in 0.5m increments. Just select the roll widths and nearest lengths to provide maximum floor coverage. Installation is completely dry with the element simply unrolled and taped into position.

Quick Installation

EcofilmSet comes pre-wired. Only a simple 2 wire electrical mains connection is required (no need for a transformer) to provide gentle and safe heating comfort. **EcofilmSet** is rated at 130W/m².

Freedom Of Installation

EcofilmSet elements are ultra-thin and have a minimum effect on finished floor levels, an important consideration when laying floating floors. It can be laid on most sub-floors, concrete or timber, when used in conjunction with **Ecomax-Lite** Thermal Insulation.

Economy

EcofilmSet produces the optimum heat distribution in any room by using the whole area of the floor to radiate heat. This means that the air temperature can be lowered by 2-3 degrees over a conventional convector system while still maintaining a comfortable environment. **EcofilmSet** can realise savings of up to 10% over conventional convector systems if the floor is well insulated.

Safety

EcofilmSet is approved to the relevant International safety approval EN60335-2-96.

Maintenance Free

EcofilmSet is reliable, safe and manufactured to last. Being electric with no moving parts it is completely maintenance free.

Warranty

EcofilmSet comes with a 10 year guarantee against manufacturing defects.

How Effective Is Under Laminate Heating?

EcofilmSet is a highly effective direct acting radiant heating system. It can be used to substitute traditional convector radiators by providing primary heating or just be used to warm a cool floor & provide background heat.

A Primary Heat Source

Heat loss calculations should be performed before using **EcofilmSet** as the sole source of heating. Consult your Architect or heating engineer. As a guide however if your room complies with the insulation standards in current building regulations, **EcofilmSet** can be used as a primary heating source. Rooms with potentially high heat losses like conservatories may need a supplementary heat source on very cold days.

Running Costs

The running costs associated with **EcofilmSet** can be related directly to the floor heat-up times. A well insulated sub-floor will significantly reduce heat losses, improve heat-up times & reduce running costs. Even on insulated floors (concrete or wood) a minimum of 6mm of **Ecomax-Lite** Thermal Insulation should be used in conjunction with **EcofilmSet**.

Example:

A 6m² floor in a lounge fitted with 6mm of **Ecomax-Lite** Thermal Insulation on top of an insulated concrete sub-floor would cost approximately 3.5p* per square metre per day to run. This is based on the heating system being on twice a day for a 2hr and 5hr period respectively. This assumes a 50% duty cycle once the floor has reached temperature and assumes a cost of 8.0p per Kwh.

*Cost estimate given is an approximation only. Running costs vary depending on heat losses in individual rooms.

Simple Control

EcofilmSet is controlled by a simple to operate timer-thermostat that offers the user maximum flexibility and control. Air and floor temperature sensors regulate heat output to maximise comfort. The unit can offer full 24 hour control, 7 days a week with simple manual override functions.



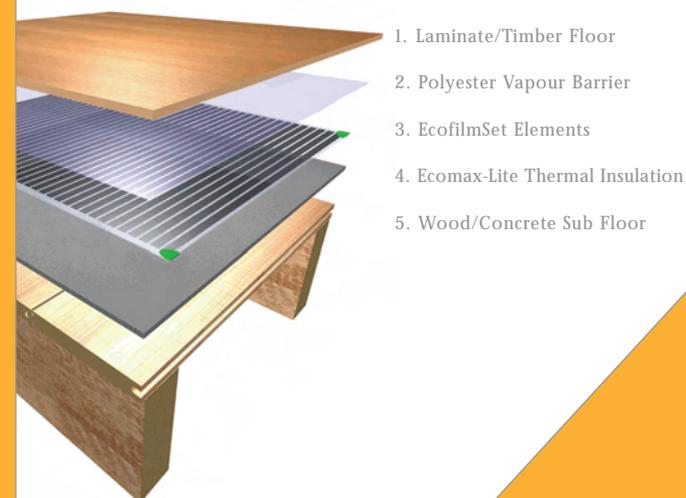
Electrical Requirements

- EcofilmSet Underfloor Heating Elements are very simple to install by following the comprehensive instruction booklet included with each element kit. The final electrical connections should be made by a qualified electrician in accordance with the current wiring regulations.
- All installations require an RCD (residual current device) for safe operation.
- The thermostat has a max load of 15Amp / 3450W at 230Vac.
- All elements require connection to the thermostat via a standard junction box.

Installation

Before laying the **EcofilmSet** on either a suspended wooden floor or concrete sub-floor it is necessary to install a layer of **Ecomax-Lite** Thermal Insulation. This will minimise heat losses and ensure quicker heat-up times for the floor. It will also act as a means of sound deadening which is required for laminate floors.

Next roll out the pre-cut lengths of **EcofilmSet** taking care to locate the "cold tails" on the wall nearest the thermostat connection box. Trim to length along cutting line as required and insulate trimmed ends as per instructions before taping the element into position. Never overlap the heating surfaces. Cover the total **EcofilmSet** installation with a layer of **EcofilmSet Polyester Vapour Barrier** before laying the chosen floor covering.



Product Codes



Product Code	Accessory	Dimensions	Thermostatic Controllers	Description
ES13-320	Ecomax-Lite Insulation* Adhesive Tape Polyester Vapour Barrier	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-325				
ES13-330				
ES13-335				
ES13-340				
ES13-345				
ES13-350				
ES13-355				
ES13-360				
ES13-365				
ES13-370	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-375				
ES13-380				
ES13-385				
ES13-390				
ES13-395				
ES13-400				
ES13-405				
ES13-410				
ES13-415				
ES13-420	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-425				
ES13-430				
ES13-435				
ES13-440				
ES13-445				
ES13-450				
ES13-455				
ES13-460				
ES13-465				
ES13-470	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-475				
ES13-480				
ES13-485				
ES13-490				
ES13-495				
ES13-500				
ES13-505				
ES13-510				
ES13-515				
ES13-520	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-525				
ES13-530				
ES13-535				
ES13-540				
ES13-545				
ES13-550				
ES13-555				
ES13-560				
ES13-565				
ES13-570	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-575				
ES13-580				
ES13-585				
ES13-590				
ES13-595				
ES13-600				
ES13-605				
ES13-610				
ES13-615				
ES13-620	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-625				
ES13-630				
ES13-635				
ES13-640				
ES13-645				
ES13-650				
ES13-655				
ES13-660				
ES13-665				
ES13-670	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-675				
ES13-680				
ES13-685				
ES13-690				
ES13-695				
ES13-700				
ES13-705				
ES13-710				
ES13-715				
ES13-720	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-725				
ES13-730				
ES13-735				
ES13-740				
ES13-745				
ES13-750				
ES13-755				
ES13-760				
ES13-765				
ES13-770	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-775				
ES13-780				
ES13-785				
ES13-790				
ES13-795				
ES13-800				
ES13-805				
ES13-810				
ES13-815				
ES13-820	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-825				
ES13-830				
ES13-835				
ES13-840				
ES13-845				
ES13-850				
ES13-855				
ES13-860				
ES13-865				
ES13-870	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-875				
ES13-880				
ES13-885				
ES13-890				
ES13-895				
ES13-900				
ES13-905				
ES13-910				
ES13-915				
ES13-920	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-925				
ES13-930				
ES13-935				
ES13-940				
ES13-945				
ES13-950				
ES13-955				
ES13-960				
ES13-965				
ES13-970	TH132F TH132AF	1250mm x 800mm x 6mm 50mm x 50m 1m x 25m	TH132F TH132AF	15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Floor sensor only. 15Amp Fully Programmable Room Thermostat with 7 day control and optimum start and night set-back facilities; c/w Air and Floor sensor.
ES13-975				
ES13-980				
ES13-985				
ES13-990				
ES13-995				
ES14-000				
ES14-005				
ES14-010				
ES14-015				

* EcoMax-Lite Thermal Insulation must be installed before laying EcofilmSet. (This will ensure quicker warm up times & reduce running costs.)