## Fixing Cable to the Pipe

Fix the heating cable to the pipe using PFP adhesive tape every 20cm. Do not use any other method. It is recommmended good installation practice to overwrap the whole length of installed cable with Alu50 aluminium tape ensuring good adhesion to the pipework. This further ensures excellent heat distribution around the perimeter of the pipework. This additional wrapping is highly recommeded when protecting a pipe that may be periodically empty.



#### Thermal Insulation of Pipe and Cable

Insulate the pipe and heating cable with fireproof moisture resistant thermal insulation a minimum and maximum thickness of 10mm and 20mm respectively. Insulation of the same thickness must be used along the whole length of the pipe in order to preserve the same thermal conditions in all the sections of the heating heating cable including the thermostat section. Should the thermostat section be insulated more than the rest of the pipe, the pipe may freeze. Should the thermostat area have less insulation than the rest of the pipe, the pipe may over heat.

PEP CABLE MODEL:

Always cover the thermostat with insulation.



#### Connection to Wiring

Make sure that a correctly installed socket is within reach of the supply lead of the heating cable. If an extension cable is used, it must be of an approved type. It is recommended to create a loop on the supply lead to prevent water that has condensed on the pipe running down the supply lead to the socket.

#### Warranty

The PFP heating cable has a 24 month warranty. The warranty period starts on the day of installation of the heating cable, confirmed in the Warranty Certificate (the installation shall not be carried out later than 6 months from the date of sale). To recognise any complaint as justified, it is necessary all installation procedures specified in this manual have been observed. Then submit the completed Warranty Certificate below along with proof of purchase.

| PIPE DIAMETER & MATERIAL:            |
|--------------------------------------|
| PIPE LENGTH:                         |
| THERMAL INSULATION TYPE & THICKNESS: |
| DATE OF INSTALLATION:                |
| INSTALLED BY(PRINT NAME):            |
| SIGN NAME:                           |

### **User Instructions**



# Pipe Freeze Protection Cable



Flexel International, Queensway Ind Est, Glenrothes, Fife, KY7 5QF t: 01592 760928 f: 01592 760929

e: enquiries@flexel.co.uk

w: www.flexel.co.uk

#### **Features**

- Frost protection for pipes.
- Standard UK plug with 1.5m cold lead.
- Protection rating IP66

- Built-in thermostat.
- The heating cable is maintenance free.

#### Recommendations

- It is recommended to disconnect the heating cable from the supply during the summer. The heating cable and supply lead should then be checked for mechanical damage before being reconnected in winter.
- The heating cable must not touch, cross or overlap, as this could result in the heating cable overheating.
- Never cut or shorten the heating cable.
- Never connect the rolled-up heating cable to the power supply.
- Do not install the PFP cable on pipes heated to more than 66°C e.g. steam piping.
- Allow a minimum of 13mm from all flammable materials, including flammable insulations.

- Never use thermal insulation thicker than 20mm. Any insulation used should be fire-proof.
- Always take measures to prevent physical damage to the cable. The cable may be damaged by sharp objects or edges.
- The cold lead connection must not be put under stress.
- The PFP cable is not designed for immersion in liquids.
- The supply lead may not be changed. If damaged the cable should be replaced.
- The cable should be disconnected from the supply before any work is carried out.
- If there is any doubt concerning the suitability of a specific pipe, please contact your pipe supplier.

#### CAUTION!

Do not use in areas subject to high mechanical loads or impact.

Not UV protected.

# Selecting the Correct Cable

| Selecting the correct cable size |  |   |    |    |    |    |    |  |  |  |  |
|----------------------------------|--|---|----|----|----|----|----|--|--|--|--|
| Thickness                        | Min.<br>surrounding<br>temperature<br>(°C) | Pipe diameter (mm)                            |    |    |    |    |    |  |  |  |  |
| of<br>insulation<br>(mm)         |  | 15  | 20 | 25 | 32 | 40 | 50 |  |  |  |  |
|                                  |  | Wattage of heating cable per linear meter (W) |    |    |    |    |    |  |  |  |  |
| 10                               | -15  | 7   | 9  | 11 | 13 | 15 | 19 |  |  |  |  |
|                                  | -25  | 11  | 14 | 16 | 19 | 23 | 28 |  |  |  |  |
| 20                               | -15  | 5   | 6  | 7  | 8  | 9  | 11 |  |  |  |  |
|                                  | -25  | 7   | 9  | 10 | 12 | 14 | 16 |  |  |  |  |

#### Technical Data

| Part Number         | PFP2                                  | PFP3 | PFP4 | PFP6 | PFP10 | PFP14 | PFP21 | PFP30 | PFP42 |
|---------------------|---------------------------------------|------|------|------|-------|-------|-------|-------|-------|
| Length (m)          | 2                                     | 3    | 4    | 6    | 10    | 14    | 21    | 30    | 42    |
| Power (W)           | 20                                    | 30   | 40   | 72   | 136   | 152   | 281   | 337   | 490   |
| Switch Temp.        | + 3°C                                 |      |      |      |       |       |       |       |       |
| Supply              | 230V +/- 10% 50HZ                     |      |      |      |       |       |       |       |       |
| Protection Rating   | IP 66                                 |      |      |      |       |       |       |       |       |
| Max Operating Temp. | + 70°C                                |      |      |      |       |       |       |       |       |
| Sensor              | Bimetallic thermostat                 |      |      |      |       |       |       |       |       |
| Supply Lead (m)     | 1.5m supplied with 3pin UK fused plug |      |      |      |       |       |       |       |       |

#### Thermostat Function

The PFP heating cable protects pipes from freezing. It includes a bimetallic thermostat which switches the heating cable on when the pipe temperature drops close to 0°C. A correctly installed cable works automatically and protects pipes from freezing without any additional control and with minimum power consumption.

#### Preparation of the Pipe

Before installing the PFP heating cable make sure that the pipe area and its surroundings are free of sharp edges and flammable materials to reduce the risk of damage to the cable. It is recommended to degrease the pipe, e.g. with white spirit, for better adhesion of the tape. If the PFP heating cable is used to protect plastic pipe, it is recommended to cover the plastic piping with Alu50 aluminium tape before installing the PFP cable. The aluminium tape ensures even heat transmission along the entire pipe perimeter.



#### Cable Installation

Spread the heating cable along the pipe, or (if it is longer) wind it around the pipe in an evenly spaced helix. If installed on plastic pipe, have the cable sufficiently loose to prevent tensile stress during thermal expansion.

