

# TRASSACOME



Self-Regulating Heat Cables



## An international partner



### ACOME is a company with solid roots

- Founded in 1932
- France's first cooperative company
- 1,450 employees
- Industrial facilities: 5 plants at a shared site in Normandy, 1 plant in Brazil and 2 in China
- Constant innovation: Investment and R&D representing 10% of sales

### ACOME serves four markets

- **Telecommunication networks:** telecom infrastructure, cabling for commercial and industrial buildings, campus networks and residential cabling.
- **Automotive:** engine compartment and cabin wiring, battery cables, multi-conductor and special-purpose cables.
- **Building networks:** domestic water systems, central heating connection systems, underfloor heating and cooling systems.
- **Transport networks:** wires and cables for transport infrastructure, energy transmission and industrial networks, heat cables.

### The ACOME approach

- **Sustainable development:** Trials with the new AFNOR SD 21000 guidelines
- **Quality and environmental certification:** ISO 9001, ISO/TS 16949, COFRAC-ISO 17025 and ISO 14001
- **Health and safety:** OHSAS 18001 strategy

### Acome is an established underfloor heating and pipe tracing specialist

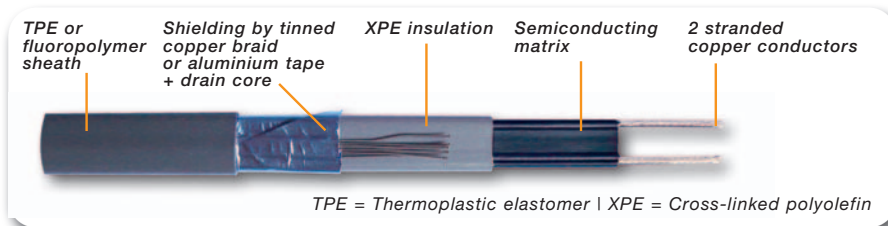
- The company has 30 years of experience as a manufacturer of constant-power cables for floor slab storage-heating. Over the last ten years, this range has been extended to include direct radiant heating cables designed to be cast into the floor screed.
- The company has been manufacturing self-regulating cables for domestic and industrial tracing systems for more than 20 years.
- Acome operates in France, Switzerland, Germany, Scandinavia, Central Europe and Russia.

# TRASSACOME Self-Regulating Heat Cables

## Self-regulating heat cables - Operating principle

A self-regulating heat cable consists of a semi-conducting matrix fitted between two conductors to which an electrical current is applied.

- The electrical resistance of the matrix increases as its temperature rises, until the cable reaches thermal equilibrium with its environment.
- When the temperature stabilises, the cable's resistance is at its maximum and power consumption is minimal.
- The cable is similar to many heating elements supplied in parallel: its heating power is therefore unrelated to its length.



### Avantages

- Energy savings
- Watt/metre output unrelated to cable length

## Applications

The two main applications for Acome self-regulating heat cables are **frost protection and temperature control**.

### Frost protection

- A** → Frost protection for pipes and containers.
- B** → Gutter and drainpipe **de-icing**.
- C** → Walk-in freezer door seal **de-icing**.
- D** → Roof-edge **snow clearance**.

### Temperature control

- E** → **Temperature control** for pipes and containers.



## ACOME product ranges

- SL2** Wide tapes rated at 10, 20, 30 and 40 W/m at 10°C
- SL3** Narrow tape rated at 10 W/m at 10°C
- SLR** Round cables rated at 27 and 38 W/m at 0°C
- SL2+** Wide tapes rated at 5 & 9 W/m at 55°C, and 13 W/m at 65°C

**A B D**

**A B**

**C**

**E**



### Product markings

#### ■ Mandatory markings:

(Designation) (Power per metre at 10°C) 230 V 215 (Acome no.) (Batch no.)

#### ■ Additional customised markings available on request.



# TRASSACOME Self-Regulating Heat Cables

## SL2 range

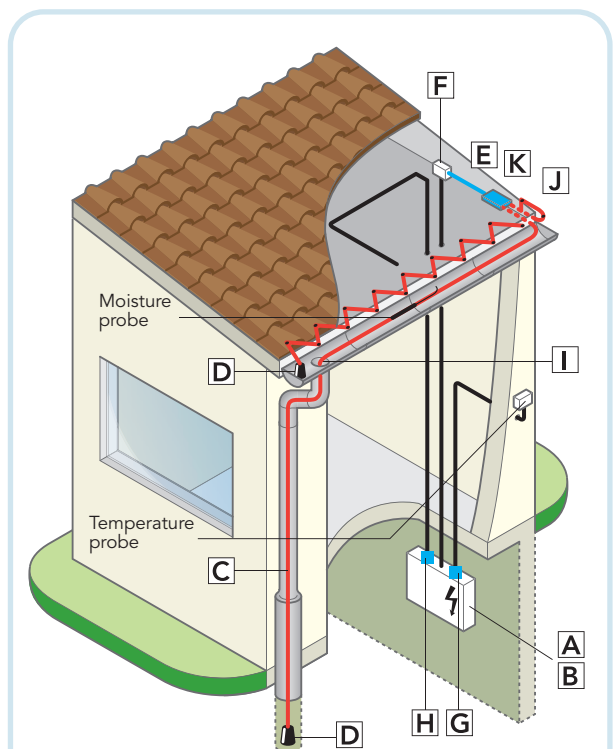
The SL2 range contains wide, flat heating tapes primarily intended for gutter and drainpipe de-icing and for protecting pipes and containers of all kinds against frost. **They are ideal for frost-protecting tanks, electric motors and water drains, for example.**



| POWER          | SHIELDING | SHEATH MATERIAL & COLOUR | PART NUMBER |
|----------------|-----------|--------------------------|-------------|
| 10 W/m at 10°C | Braid     | TPE BLACK                | M2896       |
|                | Braid     | Fluor. RED               | M4782       |
|                | Tape      | TPE BLACK                | U3628       |
| 20 W/m at 10°C | Braid     | TPE BLACK                | M2898       |
|                | Braid     | Fluor. RED               | M4783       |
|                | Tape      | TPE BLACK                | U3629       |
| 30 W/m at 10°C | Braid     | TPE BLACK                | M2900       |
|                | Braid     | Fluor. RED               | M4784       |
|                | Tape      | TPE BLACK                | U3630       |
| 40 W/m at 10°C | Braid     | TPE BLACK                | M2752       |
|                | Braid     | Fluor. RED               | M4785       |
|                | Tape      | TPE BLACK                | U3631       |

## Benefits

- Wide tape for maximum heat exchange with the traced part.
- Power ratings suitable for applications ranging from frost protection for pipes to roof-edge snow clearance.



### BASIC POWER SUPPLY

- A** C-curve circuit breaker
- B** 30 mA residual current device

### REQUIRED EQUIPMENT

- C** Heating tape
- D** Single terminating kit with heat-shrink protection
- E** Basic electrical connection kit with heat-shrink protection
- F** Electrical connection box
- G** Thermostat and probe
- H** Moisture detector and probe
- I** Tape protector for drainpipe intake

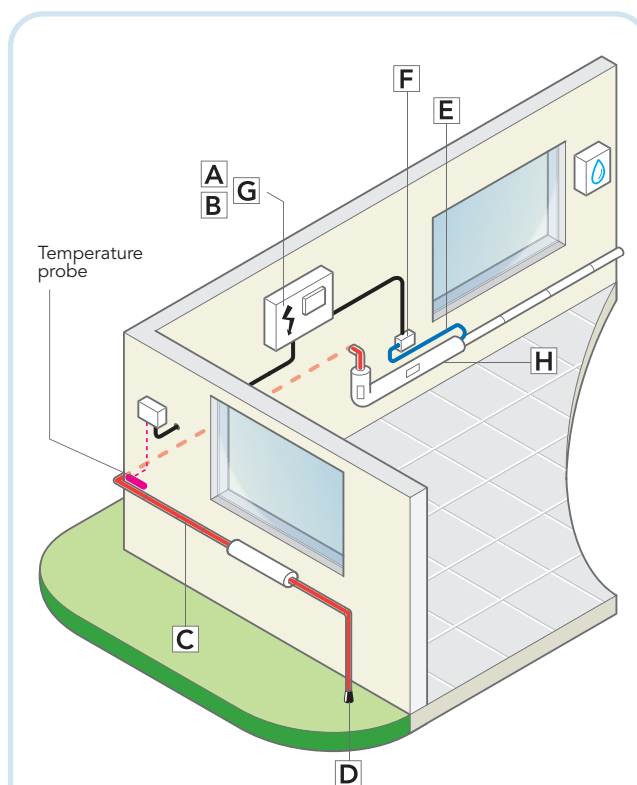
### OPTIONS

- G and H combined in a single moisture and temperature controller
  - J** E replaced with a fast-fit electrical connection kit
  - K** System of quick-fit electrical joints and junctions if multiple gutters and drainpipes are to be connected
- Depending on the property, it may also be possible to use an SL3 cable for gutter de-icing.

# TRASSACOME Self-Regulating Heat Cables

## SL3 range

The SL3 range contains narrow, flat heating tapes intended for gutter and drain-pipe de-icing, and for protecting pipes and containers of all kinds against frost. **They prevent gutters and pipes from becoming blocked or bursting as a result of freezing.**



### BASIC POWER SUPPLY

- A** C-curve circuit breaker
- B** 30 mA residual current device

### REQUIRED EQUIPMENT

- C** Heating tape
- D** Single terminating kit with heat-shrink protection
- E** Basic electrical connection kit with heat-shrink protection
- F** Electrical connection box
- G** Thermostat and ambient-air probe or pipe-mounted probe
- H** Lagging + labels

### OPTIONS

- E replaced with a fast-fit electrical connection kit
- System of quick-fit electrical joints and junctions if multiple pipes require frost protection

Pipes may also be frost-protected by an SL2 tracing tape, which is better suited to large-diameter pipes.

| POWER             | SHIELDING | SHEATH MATERIAL & COLOUR | PART NUMBER |
|-------------------|-----------|--------------------------|-------------|
| 12 W/m<br>at 10°C | Braid     | TPE BLACK                | M4473       |
|                   | Braid     | Fluor. RED               | M4903       |
|                   | Tape      | TPE BLACK                | U3535       |

## Benefits

- Narrow tape suitable for small-diameter pipes.
- Malleable and flexible for easy fitting.
- Compact design with a "food-safe" sheath, suitable for installation inside a pipe.



# TRASSACOME Self-Regulating Heat Cables

## SL2+ range

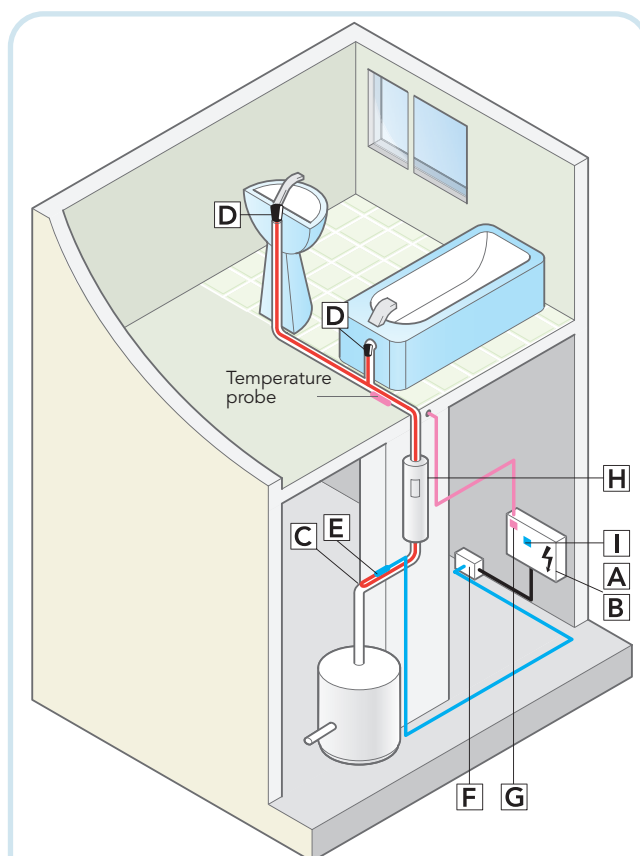
The SL2+ range features wide, flat heating tapes that are primarily intended for temperature control of pipes and containers, while also being suitable for de-icing. **They are particularly well-suited to applications in which liquids must remain fluid (e.g. food processing plants and oil refineries) and for domestic hot water management (e.g. public facilities and hotels).**



| POWER             | SHIELDING | SHEATH MATERIAL & COLOUR | PART NUMBER |
|-------------------|-----------|--------------------------|-------------|
| 7 W/m<br>at 45°C  | –         | 2 insulations GREY       | –           |
|                   | Braid     | TPE GREY                 | U4122       |
|                   | Braid     | Fluor. GREY              | –           |
|                   | Tape      | TPE GREY                 | U4123       |
| 9 W/m<br>at 55°C  | –         | 2 insulations GREY       | U4101       |
|                   | Braid     | TPE GREY                 | U3999       |
|                   | Braid     | Fluor. GREY              | M5278       |
|                   | Tape      | TPE GREY                 | U3632       |
| 13 W/m<br>at 65°C | –         | 2 insulations GREY       | U4102       |
|                   | Braid     | TPE GREY                 | U4120       |
|                   | Braid     | Fluor. GREY              | M5280       |
|                   | Tape      | TPE GREY                 | U3633       |

## Avantages

- Wide tape for maximum heat exchange with the traced part.
- Power rating and target temperature suitable for eliminating the bacteria that cause legionnaire's disease.



### BASIC POWER SUPPLY

- A** C-curve circuit breaker
- B** 30 mA residual current device

### REQUIRED EQUIPMENT

- C** Heating tape
- D** Single terminating kit with heat-shrink protection
- E** Basic electrical connection kit with heat-shrink protection
- F** Electrical connection box
- G** Thermostat and pipe-mounted probe
- H** Lagging + labels
- I** Programmable timer

### OPTIONS

- E replaced with fast-fit electrical connection kits
- Quick-fit electrical joins and junctions

# TRASSACOME Self-Regulating Heat Cables

## SLR range

The SLR range contains round heating tapes, **primarily intended for de-icing door seals on walk-in freezers**. The SLR-27 cable is particularly suitable for swing doors, and the SLR-38 for sliding doors.



| POWER         | SHIELDING | SHEATH MATERIAL & COLOUR  | PART NUMBER |
|---------------|-----------|---------------------------|-------------|
| 27 W/m at 0°C | –         | Single-insulated<br>WHITE | U3921       |
| 38 W/m at 0°C | –         | Single-insulated<br>WHITE | U4126       |

## Benefits

- Round tape for heat exchange across the full diameter of the cable.
- Suitable for doors of all size - simply cut the cable to the desired length.



*N.B. This "single-insulated" version must be protected against the risk of electrical accident (by installing an isolating transformer, for example).*

## Product qualification

- Heat tracing systems using Trassacome heating tapes have been **tested and approved** by the following organisations:



### VDE

See certificates  
Nos. 40021278 and 40021282

### CSTB

See Technical Report  
(ATEC) No. 14/05-949

### Explosive atmospheres (ATEX)

Trassacome heating tapes are **ATEX-certified** as suitable for use in explosive atmospheres.  
See **LCIE certificate No. 0042U**

# ACOME also supplies...

- Underfloor electric radiant heating systems
  - **Eléavivre:** Self-regulating cable-based underfloor electric heating  
[www.acleme.fr/fr/batiment/eleavivre](http://www.acleme.fr/fr/batiment/eleavivre)
  - **Eléatram:** Constant-power cable-based underfloor electric heating  
[www.acleme.fr/fr/batiment/eleatram](http://www.acleme.fr/fr/batiment/eleatram)
- A range of constant-power heating cables
  - **Thermaco 4:** Storage heating system cast into the floor slab  
[www.acleme.fr/fr/electric/popup\\_thermaco4](http://www.acleme.fr/fr/electric/popup_thermaco4)
  - **Thermaco 5:** Direct radiant heating cast into the floor screed  
[www.acleme.fr/fr/electric/popup\\_thermaco5](http://www.acleme.fr/fr/electric/popup_thermaco5)
- An ATEX heat tracing system
  - **TRASSATEX:** Acome self-regulating cable-based tracing system for use in explosive atmospheres



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