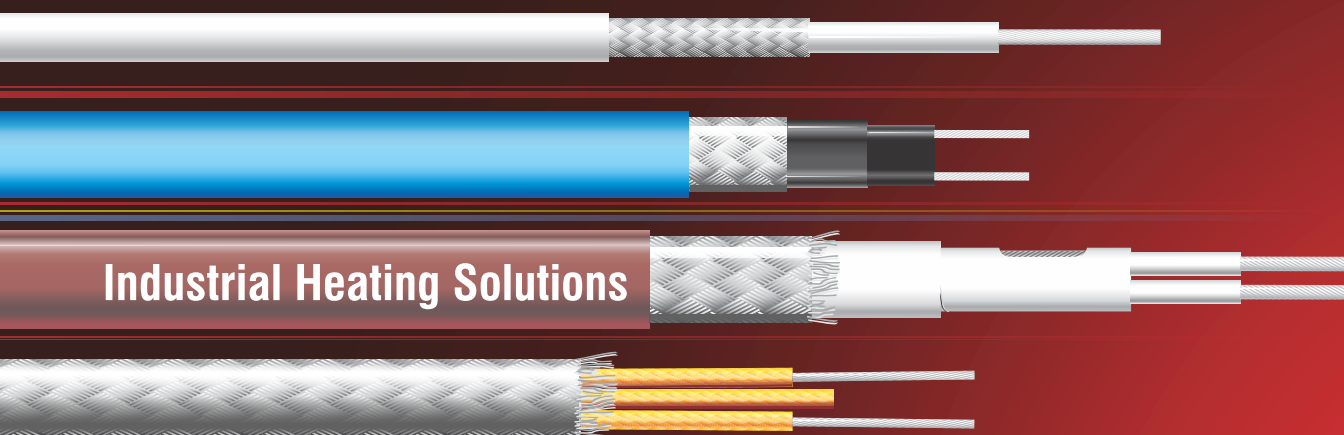




Thermopads



Industrial Heating Solutions



Thermo Group, a name synonymous with Innovation, Excellence and Quality is the manifestation of a seed shown over 42 years back.

With strong footings in Hyderabad, India, Thermo Group today has its reach in every corner of the Globe. The Group Companies are:

Thermopads – specialists in Industrial, Commercial and Domestic Heating,
 Thermocables – manufacturers of a wide range of cables,
 Thermosystems – an EPC company in the field of Fuel Oil Handling System, Heat Tracing, LP Piping and Misc. Tanks, and
 Thermo Polymers – providing in-house PVC compounding facilities to Group Companies.



Engineering Export Excellence Award continuously from 2007 onwards

Thermopads

Committed to Innovation, Quality and Customer Service, sensitive to Market needs, and backed by over 42 years of experience in the field of heating, Thermopads has the unique distinction of offering a solution to almost every surface heating application.

Industrial Heating Product Range

- Self Regulating Tracers STF
- Self Regulating Tracers STP
- Self Limiting Tracers HTT
- Cut-to-length Tracers
- Factory Terminated Tracers
- Heating Cable
- Heated Hose
- Hopper Heater
- Thermo Heating Blanket
- Heating Jackets & Insulation Pads
- Drum Heaters & IBC Heater
- Accessories

Domestic & Commercial Heating Product* Range

TRAIL BLAZER™

Blazing a trail across 60+ countries

Spreading warmth over 42 years

Enjoying relation with more than 100 long term clients globally

Catering to Industrial, Commercial & Comfort Heating

*Refer to our Domestic & Commercial Heating Solutions Product Brochure for detailed information

ThermoTrace Self Regulating Tracers - STF - For Low Temperature Applications.

Thermotrace Self regulating tracer is used for freeze protection of pipeline. It is suitable for maintaining temperatures up to 65 Deg.C.

Construction

1. 1.25 Sq.MM Coated Copper Bus wires.
2. Semi conductive Heating core extruded over the bus wires.
3. Modified Polyolefin Jacket providing electrical insulation, mechanical strength & moisture resistance
4. Aluminum Mylar with drain wire / coated copper braid to give a continuous ground path.
5. Outer jacket UV resistant Fluoropolymer / Modified Polyolefin to enable usage in corrosive area.

Features.

Standards : Meets applicable test requirements of Standards: EN 60079 - 0, IS/ IEC / EN 60079 - 30 - 1 & EN 60079 - 31

Approvals : Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad and approved by Petroleum and Explosives Safety Organization (PESO), Nagpur, India for Zone II , TI (ATEX) for Zone I / Division II & EAC for use in hazardous area applications

Safety : As the cable self regulates its heat output, it limits the maximum sheath temperature, thus making it burnout proof.



Technical Specifications

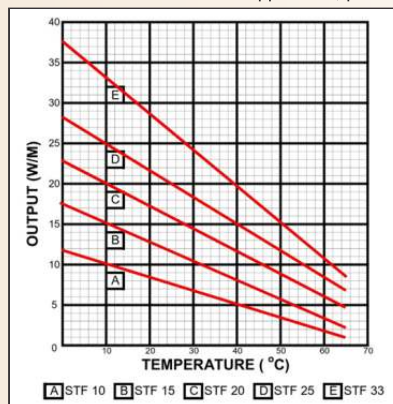
Catalogue Ref.	STF10	STF15	STF20	STF25	STF33
Heating Power W/m (230 VAC) at 10° C	10	15	20	25	33
Voltage Supply	230/240VAC, 50Hz, 110 / 120VAC on request				
Min. Installation Temperature	-65°C				
Max. Operating Temperature	65°C				
Max. Exposure Temperature	85°C				
Min. Bending radius	25mm				

Circuit Breaker selection vs Maximum length(m) /circuit

Catalog Number	Output at 10° C,230V	Maximum Circuit Length	Circuit Breaker Size	Maximum Maintenance Temperature	Maximum Exposure Temperature
STF 10	10 W/m	205	16A	65°C	85°C
STF 15	15 W/m	205	16A	65°C	85°C
		205	16A	65°C	85°C
STF 20	20 W/m	116	16A	65°C	85°C
		140	20A	65°C	85°C
STF 25	25 W/m	88	16A	65°C	85°C
		117	20A	65°C	85°C
		120	25A	65°C	85°C
		126	30A	65°C	85°C
STF 33	33 W/m	70	16A	65°C	85°C
		90	20A	65°C	85°C
		99	25A	65°C	85°C
		108	30A	65°C	85°C

Note :

1.Circuit breakers are sized based on start-up temperatures of 100C. for 110/120V application, please write to us enquiry@thermopads.com



Thermopads

Thermotrace Self Regulating Tracer - STP - For High Temperature Applications.

Thermotrace Self regulating tracer is ideally suited for high temperature applications for Tanks & pipeline. It is suitable for maintaining temperatures up to 150 Deg.C. These Tracers allow steam cleaning of the pipelines.

Construction.

1. 1.25 Sq.MM Coated Copper Bus wires.
2. Semi conductive Heating core extruded over the bus wires.
3. Fluoropolymer Jacket providing electrical insulation, mechanical strength & moisture resistance
4. Coated copper braid to give a continuous ground path.
5. Outer jacket UV resistant Fluoropolymer to enable usage in corrosive area & high temperatures.

Features.

Standards : Meets applicable test requirements of EN 60079 - 0, IS/ IEC / EN 60079 - 30 -1 & EN 60079 - 31

Approvals : Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad and approved by Petroleum and Explosives Safety Organization (PESO), Nagpur, India for Zone II , TI (ATEX) for Zone I / Division II & EAC for use in hazardous area applications

Safety : As the cable self regulates its heat output, it limits the maximum sheath temperature, thus making it burnout proof.



Technical Specifications

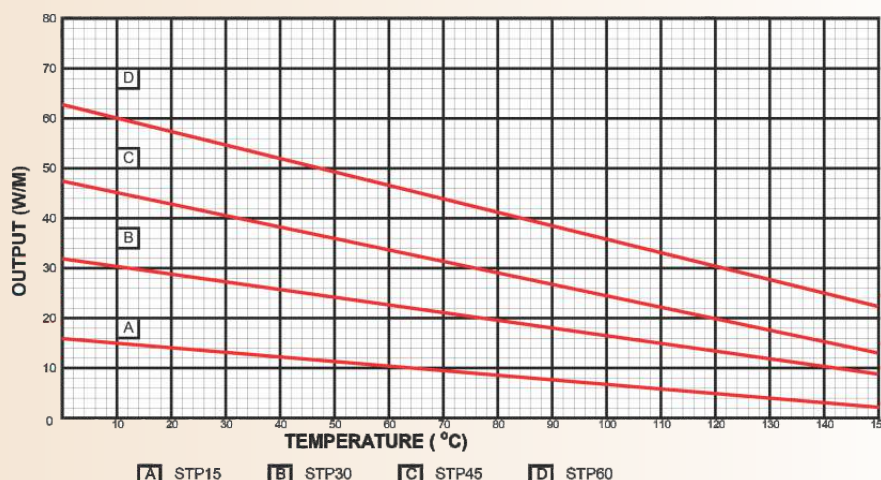
Catalogue Ref.	STP15	STP30	STP45	STP60
Heating Power W/m (230 VAC) at 10° C	15	30	45	60
Voltage Supply	230/240VAC, 50Hz, 110 / 120VAC on request			
Min. Installation Temperature	-65°C			
Max. Operating Temperature	150°C			
Max. Exposure Temperature	250°C			
Min. Bending radius	25mm			

Circuit Breaker selection vs length(m) /circuit

Catalog Number	Output at 10° C	Maximum Circuit Length	Circuit Breaker Size	Maximum Maintenance Temperature	Maximum Exposure Temperature
STP-15	15 W/m	117	16A	150°C	250°C
		152	20A	150°C	250°C
		185	25A	150°C	250°C
STP-30	30 W/m	68	16A	150°C	250°C
		91	20A	150°C	250°C
		114	25A	150°C	250°C
STP-45	45 W/m	48	16A	150°C	250°C
		65	20A	150°C	250°C
		82	25A	150°C	250°C
STP-60	60 W/m	38	16A	150°C	250°C
		51	20A	150°C	250°C
		64	25A	150°C	250°C

Note:

1. Circuit breakers are sized based on start-up temperatures of 10°C.
2. Please mention specifically for 150°C requirements



Thermotrace Self Limiting / Regulating Tracer - HTT - For High Temperature Applications.

Thermotrace Self limiting regulating tracer is ideally suited for high temperature applications for Tanks & pipeline. It is suitable for maintaining temperatures up to 230 Deg.C. These tracers can withstand temperatures associated with steam purging operations in the pipelines.

Construction.

1. 3.3 Sq.mm Coated Copper Bus wires.
2. Fluoropolymer Insulation
3. Coiled Heater Alloy Heating Element.
4. Fibre glass braid.
5. Fluoropolymer Jacket providing electrical insulation, mechanical strength & moisture resistance
6. Coated copper braid to give a continuous ground path.
7. Outer jacket UV resistant Fluoropolymer to enable usage in corrosive area & high temperatures.

Features.

- Standards : Meets applicable test requirements of EN 60079 -0, IS/ IEC / EN 60079 - 30 - 1 & EN 60079 - 31
- Approvals : Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad and approved by Petroleum and Explosives Safety Organization (PESO), Nagpur, India for Zone II , TI (ATEX) for Zone I / Division II & EAC for use in hazardous area applications
- Safety : As the Cable self regulates its heat output, its limit the maximum sheath temperature, thus making it burnout proof
- Cut to Length : Thermotrace HTT is supplied in continuous long lengths which can be cut to desired lengths.

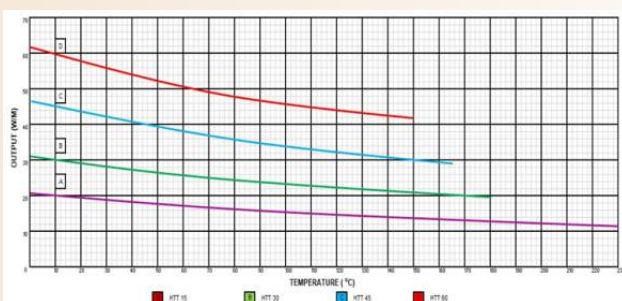


Technical Specifications

Catalogue Ref.	HTT15	HTT30	HTT45	HTT60
Heating Power W/m at 10° C	15	30	45	60
Voltage Supply	230/240VAC, 50/60 Hz, 110/120VAC, Max. 500V on request.			
Max. Installation Temperature Power On.	230	180	165	150
Max. Operating Exposure Temperature Power Off.	260°C			
Min. Installation Temperature	-65°C			
Min. Bending radius	25mm			

Circuit Breaker Selection and Maximum Circuit Lengths

Catalog Number	Output at 10°C, 230 V	Max. Circuit Length	Circuit Breaker Size	Max. Maintenance Temperature	Unconditional Maint. Temp T Rating at Max. Temp
HTT-15	15 W/m	170	16A	230°C	T2
		270	25A		
HTT-30	30 W/m	84	16A	180°C	T3
		130	25A		
		180	32A		
		190	40A		
HTT-45	45 W/m	55	16A	165°C	T3
		90	25A		
		120	32A		
		155	40A		
HTT-60	60 W/m	45	16A	150°C	T3
		70	25A		
		90	32A		
		115	40A		



Thermopads

Thermo Constant Watt Tracers-CTL- Cut to length heat tracers for industries

Thermotrace CTL Electrical Heat Tracers are cut-to-length parallel heat tracers for maintaining product temperature inside vessels, tanks, pipeline or equipments to keep viscous fluids in flow state avoiding choking of pipelines. Thermotrace CTL-PT (Fluoropolymer PTFE insulated), CTL-SR (Silicon Rubber insulated) is used in the process industry - Oil & Gas, Petrochemical, Power, Chemicals & Fertilizers, Metallurgical, Cement, Pharma, Food and Edible oil industries. Thermotrace CTL-ZH (Polyolefin insulated) finds application for freeze protection in commercial and industrial segments.



Construction

1. Buswires of multistrand copper
2. Insulation (Fluoropolymer / Silicon Rubber / LSZH) depending on temperature application
3. Heating Element
4. Insulation Sheath
5. Metallic braiding for mechanical protection and earth continuity
6. Outer Jacket (optional) to enable use in corrosive / Hazardous atmosphere.

Features

Standards	Meets all test requirements of CTL-PT / SR/ ZH to EN 62395-1 and CTL - PT to EN 60079-0, EN 60079-30-1 & EN 60079-31
Approvals	CTL-PT: Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad And certified by Petroleum & Safety Organization (PESO) / Nagpur, for Zone II , TI (ATEX) for Zone I / Division II & EAC for use in hazardous area applications CTL – PT / SR/ ZH : CE and EAC
Rugged construction	Outer metallic braid in CTL/PT & CTL/SR makes it robust and suited to hostile conditions
Efficient Heat Transfer	Flexible and flat configuration of the Thermotrace CTL enables an intimate contact with the surface to be heated, ensuring efficient heat transfer
Cut to Length	Thermotrace CTL is supplied in continuous long lengths, which can be cut to desired lengths

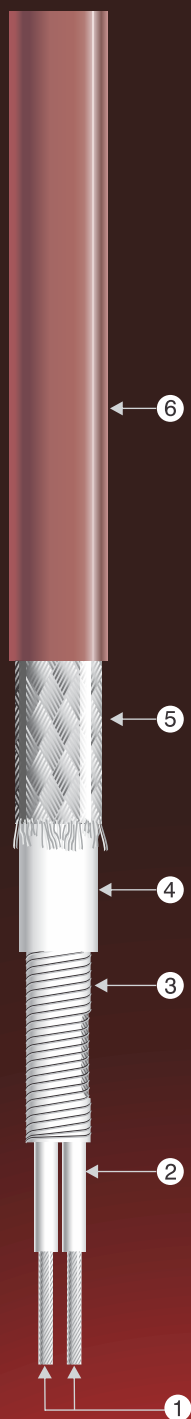
Technical Specifications

Model	CTL ZH		CTL SR				CTL PT				
Bus conductor	2x1.5sq.mm		2x1.1sq.mm				2x1.5sq.mm				
Bus insulation	Polyolefin		Silicon Rubber				Fluoropolymer				
Sheath	Polyolefin		Silicon Rubber				Fluoropolymer				
Braid	Copper/Coated Copper or Stainless Steel		Copper/Coated Copper or Stainless Steel				Copper/Coated Copper or Stainless Steel				
Supply Voltage	230V		230V				230V				
Power Output (W/m)	10	20	10	20	30	40	16	25	33	45	60
Max.circuit length (m)	160	112	160	100	90	60	125	100	90	75	60
Max.Operating Temperature (°C) (Power On)	40	35	190	175	180	120	220	200	180	165	150
Max. Withstand Temperature(°C) (Power Off)	80°C		180°C				260°C				
Min. Installation Temperature (°C)	-15°C		- 50°C				- 65°C				
Min . Bend radius	30mm		20mm				25mm				

Can also be custom designed to specified operating voltages

Range

Depending on the application and site conditions (viz. temperature, weather conditions, chemical environment), various insulating materials for Thermotrace CTL can be offered.



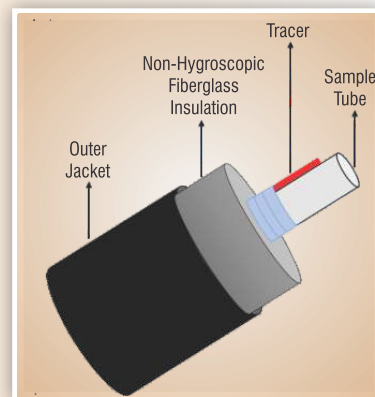
Pre-Insulated Heated Hose



Pre-Insulated Heated Hoses are used for Sample Transportation Applications to Process Analyzer & Emission Monitoring Systems, Anti-Freeze Applications for Instrumentation Impulse Tubes & Hot Melt Applications to feed viscous liquids to applicator system like glue, paint, etc.

Construction

1. Sample Tube (Single / Multi Tubes)
2. Heat Tracer
3. Non-Hygroscopic Fiberglass Insulation
4. Outer Jacket



Features

Standards	Heat Tracer or Heating Cable used in the Heated Hose meets all test requirements as per BS / IEEE / European Standards.
Approvals	Heat Tracers or Heating Cables used are certified for use in hazardous area as per ATEX & EAC, CSIR, PESO.
Efficient	Heat reflective foil on the heating cable and process tube ensures efficient heat transfer.
Ready To Use	Prefabricated with sample line and heating system incorporated is ready to use.
Easy To Install	No need of any fabrication and fixing, ready to use with required connectors and end connections. Since there is no need for any special tools it is easy to install.
Range	Depending on the application and site conditions (viz. temperature, weather conditions, and chemical environment) we can offer various options to match your individual needs.

Technical Specifications

Item Description	Heated Tube Bundle / Hose	Hot Melt Hose
Process Tube	PTFE, Seamless S.S 316 L, commercially available special alloys	SS Braided PTFE
Process Tube Size	Up to ¾" OD	Up to ½" OD
Heating Element	Self-Regulating, Power Limiting, Constant Watt type (Series / Parallel)	Constant Watt type (Series / Parallel)
Thermal Insulation	Fiberglass Wool / Felt Insulation	Silicon Foam & Polyurethane Foam
Outer Jacket	U.V. Resistant Extruded FRLS PVC, Corrugated Flexible PA Conduit	Nylon Braided & Corrugated Flexible PA Conduit
Operating Voltage	230V / 110V AC	230V / 110V AC
Maximum Wattage	Up to 120W/M with 2 Tracers	Up to 200W/m
Max. Operating Temperature	220°C	200°C
Temperature Sensor	In built RTD / Thermocouple / Thermostat	In built RTD / Thermocouple / Thermostat
Process Connection	None	Connector Coupling / Flanged / as per customers requirement
Power/Control Connection	Pre-terminated available on request.	2M of Lead cable (3 wire) for both power and control
Area Approvals	Safe & Hazardous area approvals available (ATEX, EAC)	Safe area only

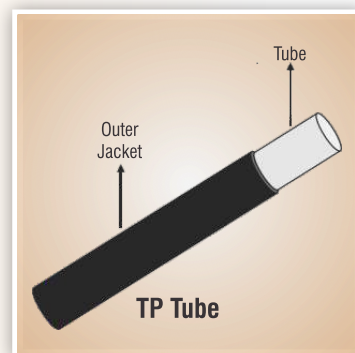
Jacketed Tube

The jacketed tube is used to protect outdoor installed SS316L tubes from corrosion in Corrosive Plant and Marine Environments. These tubes supplied in coils can be installed in straight long lengths without requirement of tube fittings along the way offering uninterrupted surface protection.

Jacketed Tubes are used in Pneumatic Tubes, Hydraulic Tubes and Gas & Liquid Sample Transportation.

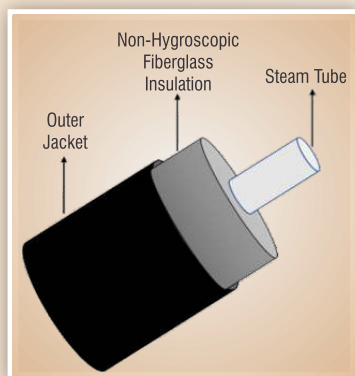
Technical Specifications

Item Description	Pre-insulated Tube Bundle / Hose
Process Tube	Welded SS316L (others on request)
Process Tube Size	Upto ¾" OD
Outer Jacket	U.V. Resistant Extruded FRLS PVC, TPU
Accessories	Self-Bonding Tape, Heat Shrink Boots.
Others	<ul style="list-style-type: none"> Continuous lengths in coil form Choice of jacket colors



Pre-Insulated Tubes

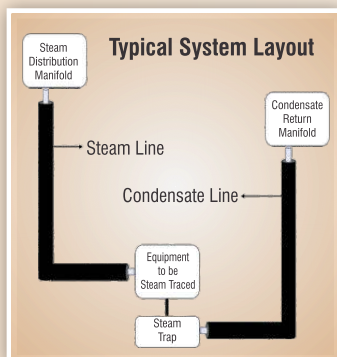
For Steam and Condensate Transportation



The pre-insulated tube is used to transport high temperature gas or liquid samples from its source to destination. On most occasions this is used to provide personnel safety from high temperature surfaces or to prevent sample temperature loss during transport.

The most popular application is however to transport in steam heating or steam tracing applications. These pre-insulated tubes are used to transport steam from source which may be the steam manifold to the user point or equipment to be heated. The same product can also be used for transporting condensate from the return point to the condensate manifolds.

Technical Specifications



Item Description	Pre-insulated Tube Bundle / Hose
Process Tube	Seamless SS316L, Welded SS316L, Copper (others on request)
Process Tube Size	Upto ¾" OD
Thermal Insulation	Non-hygroscopic Fiberglass
Outer Jacket	U.V. Resistant Extruded FRLS PVC, TPU
Accessories	End Seals, Silicon Sealant, Patch Kit
Others	<ul style="list-style-type: none"> Continuous lengths in coil form Choice of jacket colors

Thermopads

Heating cables HE1/ HC3/Ex-HC3 - For safe and hazardous areas

Heating Cable HC3/Ex-HC3 are series heating cable used for temperature maintenance in pipelines and storage tanks to keep fluids in flow state. They find application for process heating requirements in Oil & Gas, Petrochemical, Power, Chemicals & Fertilizers, Metallurgical, Cement, Pharma, Food and Edible oil industries.

Heating cables HE1 is series heating cable used for heating mold

Construction

1. Heating Element Single Conductor (multistrand/spiraled)
2. Primary Fluoro Polymer Insulation
3. Coated Copper braid for mechanical and earth continuity
4. Fluoropolymer Outer Jacket

Features

Standards	VDE 0253, UL 758, IEC/EN 60079-0 & IEC/EN 60079-7&IEC/IEEE/EN60079-30-1 requirements
Approvals	HE1&HC3 CABLE: UL, VDE, EAC for use in safe area EX-HC3 CABLE: IECEX, Baseefa, CSA Group, EAC, TI (ATEX) for Zone 1 / Division II, central institute of Mining and Fuel Research (CSIR - CIMFR), Dhanbad and Certified by Petroleum & Safety Organization (PESO)/ Nagpur, for Zone II for use in hazardous area
Long life	PTFE insulation used has excellent electrical properties, fire-resistant, inert to most chemicals, virtually non-ageing and can withstand high temperature continuously

Technical Specifications

SERIES CABLES	HE1 CABLE	HC3 CABLE	EX-HC3 CABLE
Heating conductor	As per the resistance range given		
Insulation	Fluoropolymer.	Fluoropolymer.	Fluoropolymer (with kapton tape)
Braid	Coated Copper (Optional).	Coated Copper.	Coated Copper.
Outer Sheath	–	Fluoropolymer.	Fluoropolymer.
Supply Voltage	300/500V.	300/500V.	Upto 750 VAC.
Power Output (W/m)	–	–	Max. 30W/m.
Max. Operating Temperature	180 Deg.C	180 Deg.C	180 Deg.C
Max. Withstand Temperature	250 Deg.C	250 Deg.C	260 Deg.C
Temperature Classification	–	–	T6 to T2.
Min Installation Temperature	–	–	– 65 Deg.C
Mechanical Strengths	–	–	Low Risk Mechanical damage 4J / High Risk Mechanical damage 7J.
Min. Bending radius	6 X Diameter of the cable.	6 X Diameter of the cable.	6 X Diameter of the cable.
Applications	Heating mold.	process heating requirements in Oil & Gas, Petrochemical, Power, Chemicals & Fertilizers, Metallurgical, Cement, harma, Food and Edible oil industries.	

Range

Standard manufacturing linear resistances (ohms/KM) are as below and are supplied in reels of 500 to 1000M lengths -
 0.8 / 1.1 / 1.8 / 2.9 / 4.4 / 7 / 10 / 11.6 / 15 / 17.8 / 25 / 31.5 / 50 / 68 / 100 / 150 /
 170 / 200 / 240 / 330 / 370 / 500 / 730 / 1000 / 1440 / 1730 / 2160 / 2400 / 3000 / 4000 / 5600 / 8000.

Wide range of linear resistances per meter and can be designed for longer lengths.

Cables to suit specific needs with insulation of Silicon Rubber, PVC and other combinations can also be manufactured.



Thermopads

Hopper Heater

Thermo Hopper heating systems play an important role in the removal of fly ash from precipitators and bag filter hoppers. The hopper heater is designed to preheat the hopper to prevent moisture condensate from collecting in it during startup conditions. In addition, they maintain the hopper and fly ash at temperatures above the flue gas acid dew point during normal operating conditions

Construction

Thermo Hopper Heater comprise of Flat heating Strips / Wire type elements, uniformly distributed and sandwiched between multiple layers of fiber glass cloth. This complete assembly is housed in tamper proof rugged high temperature resistant Aluminum Body. The Heating element is connected to power supply through Fibre Glass insulated and Silicon Rubber sheathed Cable



Features

Approvals	Thermo panel type Hopper Heaters are approved by CSA and EAC
Low Watt Density	For uniform Heating and long Life
Vibration and Shock Resistance	No screws Nut bolts. No Moving Parts. Heater is sealed with rivets
Rugged Construction	Rugged High Temperature Resistant Aluminum Body
Ease of Maintenance and Installation	Provided with mounting angles/Plate(Optional)
Long Life	Good heater contact with surface resulting in lower element temperatures

Technical Specifications

Operating Voltage	415 V AC 3 Phase
Max. Watt Density	3 Watts/sq. inch
Max. Operating Temperature	180 Deg.C
Temperature Sensor	Thermostat / RTD PT 100
Power/Control Connection	5.0 M of Lead cable
Temperature Control	TIC/Capillary type Thermostat

STANDARD RANGE

Heater size (mm)	152x203	152x1520	305x305	305x1520
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Can be custom designed to suit specific requirements.

Thermo Heating Blanket - For curing epoxy composite material.

Thermo heating blankets are used for onsite repair of wind mill blades which can be damaged or degraded by several factors. These are specially designed to cure the leading, trailing & tips of the wind mill blade.

Construction

Thermo Heating blankets comprise of Fluoropolymer insulated heating elements distributed very uniformly and sandwiched between multiple layer of Aluminum coated fiber glass cloth. This complete assembly is insulated with fiber glass wool on one side. The Heating element is connected to power supply through Screened Silicon Rubber insulated Cable .



Features

Uniform Heating	Close and evenly distributed heating element backed by aluminium foil ensures effective and uniform heating.
Highly Efficient	Heat is applied directly on the surface resulting in minimal heat loss.
Precise Temperature Control	Thermostatic controls associated with heaters enable very precise temperature control with minimal thermal lag.
Long Life	The high flexibility also ensures good heating element contact resulting in lower element temperatures and hence long life.
Ease Of Handling	Very Light & Highly Flexible construction enables onsite repairs even at heights
Safety	100% Aluminium screening ensures human safety.

Technical Specifications

Operating Voltage	230V/110V AC
Operating Temperature	60°C to 90°C
Temperature Sensor	RTD/Thermocouple having overall braided cold leads of 2 meter length(Optional)
Power/Control Connection	2.0 M of Lead cable
Temperature Control	In built Capillary type Thermostat - Range 30° C to 110° C(Optional)
High Temperature Protection	In built Temperature Limiter

Range

Mat Size in Meters	0.5x1.0	0.5x2.0	0.5x3.0	1.0x1.0	1.0x2.0
Wattage @ 230 V	375	750	1125	750	1500
Resistance (Ohms)	141.1	70.5	47	70.5	35.3
Mat Loading (W/SqM)	750	750	750	750	750

Can be custom designed to suit specific requirements.

Thermopads

Heating Jackets

Thermo Heating Jackets are used to raise or maintain elevated temperatures of the contents in reaction vessels, storage tanks, tankers and process equipments in industries. They find application in chemical and pharmaceutical industry to heat viscous fluids, in cement industry for hopper heating to remove moisture in flue gases, in packaging industry for free flow of gums and in metallurgical industry for annealing of metals and similar applications.

This flexible electric heater provides heat from the external surface of the device to be heated. Catering to a wide temperature range from 100°C to 800°C. They eliminate high investment and operating costs associated with steam, oil, fire wood & conventional electric heating.



Construction

Thermo heating jackets comprise of flexible heating elements distributed uniformly on a fibreglass or quartz cloth carrier. The fibreglass or quartz cloth carrier is tailored to the shape of the vessel to be heated. Eye-lets and laces provided on the panels ensure a snug fit of heater on the surface being heated, avoiding any air gaps. The heating elements terminate on cold leads, which are connected to the power supply.

Features

Uniform Heating	Close and evenly distributed heating element ensures effective and uniform heating
Highly Efficient	Heat is applied on the surface from where heat loss occurs resulting in minimal heat loss
Easy maintenance	Being an external heating system, maintenance is possible without the need for costly, disturbing shutdowns
Precise Temperature Control	Thermostatic controls associated with heaters enable very precise temperature control with minimal thermal lag
Adaptability	The high flexibility of the carrier material enables the heaters to fit snug on complicated shapes and bends and hence suited to all shapes and sizes
Long Life	The high flexibility also ensures good heating element contact resulting in lower element temperatures and hence long life

Technical Specifications

Operator Temperature (Max.)	Fibre glass Jackets - 400°C, Quartz Jackets - 800°C, PTFE Jackets - 150° - 200°C
Operating Voltage	230V single phase or 440V three phase
Heat Load	Upto 6kW/m ² max.

Designed to suit individual requirements incorporating cutouts to accommodate any shape and size.

Insulation Pads

Thermal Insulation Pads are used to insulate hot surfaces in gas turbines, valves, filters, meters and other accessories in a process line. They ensure energy conservation, protection to operators and provide comfortable work environment. These are typically used as a backing over the heating jacket or heating panel, to ensure better heat efficiencies and minimal energy loss.

Construction and Features

- Outer layer fibre glass cloth (aluminized or PVC / PU coated or Teflon coated).
- Insulation of fibre glass wool of thickness 25mm to 100mm (as desired).
- Inner layer fibre glass cloth. Pad suited to maximum surface temperature of 300°C.
- Insulation pads can be tailored to any complex shape, to fit snug on the vessel or surface to be insulated.
- Required cutouts provided for obstructions or projections.
- Velcrow or Eyelets & laces provided for strapping.

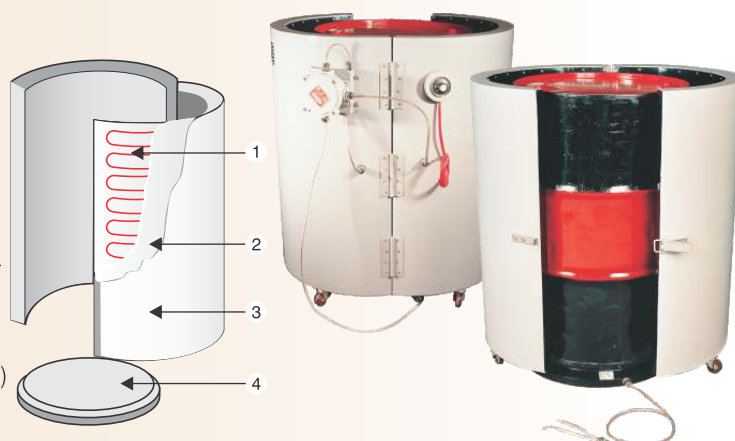


Drum Heaters

Thermo Drum Heaters are used for heating metallic drums to facilitate handling of solidified or viscous materials like adhesives, waxes, tar, chemicals, oils etc. They eliminate cumbersome methods and high investments associated with steam and oil or fire wood heating.

Construction

1. Flexible heating element on Cylindrical Metal Cover carrier
2. Thermal lagging of glass wool
3. Metal casing
4. Base Heater for bottom heating (optional)
5. Control Panel incorporating thermostatic controls (optional)



Base Heater

♦ Mild Steel Backing Plate ♦ Thermal lagging of glass wool ♦ Inter Woven Heating Element ♦ High Temperature Glass Cloth ♦ Mild Steel Spun Shell

Technical Specifications

Heat Load	Cylinder - 3kW/m ² (4.5kW max.), Base heater - 5kW/m ² (1.5kW max.)
Operating Voltage	440V, three phase, 4 wire AC

Thermo Intermediate Bulk Container Heater

THERMO INTERMEDIATE BULK CONTAINER (IBC) HEATER is a simple and an effective heating solution for all types of drums. Providing an efficient heating system our Container / Drum heating jackets are ideal for reducing the viscosity of a variety of products including fats, oils and foodstuffs, to enable the decanting of the product into smaller containers or process lines. Used throughout the world by a multitude of industries from pharmaceutical to chemical, cosmetic to food, Thermopads Container/ Drum heater is the ideal solution for heating liquid materials stored in intermediate bulk containers.

Construction:

Manufactured from lightweight but resilient materials and fitted with adjustable quick release buckles for ease of installation and removal. There is an in-built thermal protector of 75°C for safety in abnormal conditions. The heating element of the IBC heater is stitched into a high temperature mesh covered by thermal insulating mat to prevent heat loss.

Specifications

Power Output	Please refer product range table
Voltage	230 V
Thermal Protector	75 V
Insulation	Fluoropolymer
Metal Sheathing	Coated Copper
Installation(Fixing)	Nylon webbing with quick release adjustable buckles
Cold Lead	3 C x 1.5 Sqmm 2.0 meter
Jacket Material	Heated face - Silicone Coated Fiber Glass Cloth Non Heated face: Parachute cloth fabric at back side

Product Range:

S.No	Catalogue Reference Number	Size of Heater (mm.)	Power (Watts) @ 230 Volts	Resistance (Ω) @ 20°C (- 5 %, + 10 %)
1.	DH-1000/400	1020 x 380	400	132.25
2.	DH-950/450	1050 x 460	450	117.55
3.	DH-1150/700	1650 x 370	700	75.57
4.	DH-950/1200	1950 x 800	1200	44.08



Can also be custom designed as per specific requirements

Thermopads

Key Customers

BHEL

Bharat Petroleum

NTPC

Engineers India Ltd.

Gas Authority of India Ltd

L&T Ltd

Hindustan Petroleum

Technip

Toyo Engineering

Indian Oil Corporation Ltd.

ONGC

Reliance Industries

Steel Authority of India

Thermax

Analyzer Sector

Emerson

ABB

Siemens

Chemtrols

Yokogawa

Environmental S.A

Wind Mills Sector

Suzlon

Enercon

Gamesa

Accessories

A full range of qualified accessories are available to complete the Heat Tracing System.

1. Power Connectors
2. End Termination
3. Adhesive Aluminium Foil/FG Tape
4. Adhesive sealant
5. T-Connectors
6. Junction Boxes
7. Caution Labels
8. Ex-HC3 Termination Kits
9. End Seal
10. Bulk head entry / Through Pass Glands
11. Ex-HC3 Termination Kits



EX - HC3 Termination kits

EX - HC3 Termination kits are used for Power and End termination of Ex HC3 Cable, these kits are ATEX & IEC Ex certified



Junction boxes

Junction boxes are used for power and end termination for all heating cables, these Junction boxes are ATEX certified.



Thermostats

Thermostats are used for Temperature control, these thermostats are ATEX certified

Digital Controllers

Digital Controllers are used for Temperature control where there is an analogue signal required.

RTD PT100

RTD PT100 is used for precise temperature control, these RTD PT100 are ATEX certified

Bulkhead entry / Through pass glands

Bulkhead entry / Through pass glands are used for pre-insulated tubing bundle entry at the sampling end.

End Seal

End Seal is used for pre-insulated tubing bundle entry at the probe end



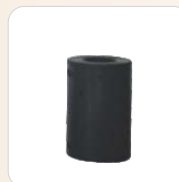
JunctionBox



Bulk Head Entry



End Seal



Through Pass Gland



Jointing Kit

www.thermopads.com

Services

We also provide turnkey services for installation and commissioning of Electrical Heat Tracing Systems. Large prestigious projects have been executed by us in India and overseas for power plants, oil and gas, process industry etc. The installations cover the entire mechanical, electrical and thermal insulation jobs and is in use for wide range of fluids like water, fuel, lube oil etc. With in-house design and engineering facilities and a team of dedicated technical professionals, we ensure world class services to our clients.



12 Kms of Thermotrace Self Regulating Tracer installed at Indian Oil Corporation Ltd. Panipat (operational since 2006)



Thermo Heating Cable at BPCL's gas turbine project supplied by BHEL, Hyderabad.



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IBM Technology Award Winner...

ISO 9001, 14001, 45001.