# TESL<sup>TM</sup>

## Series Constant Watt Heating Cable

## Application . . .

## **Long Line Temperature Maintenance or Freeze Protection**

TESL series resistance constant Watt heating cables are used where circuit lengths exceed the limitations of parallel resistance heating cables. TESL withstands the temperature exposures associated with steam purging.

The series circuitry of TESL provides consistent Watt-permeter power output along the entire length of the cable with

no voltage drop. A Fluoropolymer overjacket provides chemical resistance for the heating cable while maintaining maximum flexibility. The construction of the cable meets the 4 joule impact test per IEC-EN-60079-30-1.

TESL cables are approved for use in ordinary (nonclassified) areas and Zone 1 and 2 ATEX classified areas.

## Ratings . . .

Maximum watt density	30 W/m
Maximum supply voltage	600 Vac
Maximum continuous exposure temperature	
Power-off	260°C
Minimum installation temperature	60°C
Minimum bend radius	.6 x cable O.D.
T-rating <sup>1</sup>	T3 to T6
(based on stabilized design)	

#### Stabilized Design<sup>2</sup>...

The watt density limitation for TESL cables is directly related to the desired maintain temperature. Thermon is able to ensure the T-rating based on a stabilised design that enables series constant Watt heating cables to operate in hazardous areas without limiting thermostats. TESL cable output and Trating are dependent upon supply voltage, cable resistance, temperature conditions as well as additional variables. Contact Thermon for design assistance.

## Basic Accessories . . .

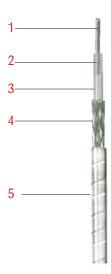
**Power Connection:** TESL cables typically require nonheating terminations at each end of the circuit before connecting to power. Contact Thermon for complete information.



#### Notes . . .

- 1. T-rating per internationally recognised testing agency guidelines.
- 2. Thermon Heating are approved for the listed T-ratings using the stabilized design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact Thermon for design assistance.

## **Product Specifications**



#### Construction . . .

- 1 Heating Conductor
- 2 Fluoropolymer Dielectric Insulation
- 3 Polyimide Tape
- 4 Nickel-Plated Copper Braid (BN)
- 5 Fluoropolymer Overjacket

## Certification/Approval . . .



**European Organisation for Electrotechnical Standardisation** 

**Standardisation** Hazardous (Classified) Location

#### Baseefa





II 2 G Ex e II 08 ATEX 0170 U

#### Sira





II 2 G Ex e II T3 to T6 08 ATEX 3127 X

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#### Available Cables . . .

Product Type	Resistance Ohm/m at 20°C	Conductor Diameter mm	Cable Diameter mm		
TESL 0.8	0.0008	6.05	9.8		
TESL 1.1	0.0011	5.16	9.2		
TESL 1.8	0.0018	4.03	7.8		
TESL 2.9	0.0029	3.20	6.9		
TESL 4.4	0.0044	2.58	6.3		
TESL 7	0.007	2.05	5.8		
TESL 10	0.0100	1.72	5.5		
TESL 11.6	0.0116	1.60	5.4		
TESL 15	0.015	1.38	5.1		
TESL 17.8	0.0178	1.28	5.0		
TESL 25	0.025	1.08	4.8		
TESL 31.5	0.0315	0.96	4.7		
TESL 50	0.050	0.76	4.5		
TESL 68	0.068	0.65	4.4		
TESL 100	0.100	1.31	5.0		
TESL 150	0.150	1.07	4.8		
TESL 170	0.170	1.00	4.8		
TESL 200	0.200	0.93	4.7		
TESL 240	0.240	1.05	4.8		
TESL 330	0.330	1.25	5.0		
TESL 370	0.370	1.18	4.9		
TESL 500	0.500	1.02	4.8		
TESL 730	0.730	0.60	4.4		
TESL 1000	1.000	0.90	4.7		
TESL 1440	1.440	0.77	4.5		
TESL 1730	1.730	0.70	4.5		
TESL 2160	2.160	0.63	4.4		
TESL 2400	2.400	0.89	4.6		
TESL 3000	3.000	0.76	4.5		
TESL 4000	4.000	0.68	4.4		
TESL 5600	5.600	0.58	4.3		
TESL 8000	8.000	0.48	4.2		

## Circuit Breaker Sizing and Type . . .

Maximum circuit lengths for TESL heating cables will be a function of cable resistance, circuit length and operating voltage. Circuit length, breaker sizing and earth-fault protection should be based on applicable local codes.

Earth-fault protection of equipment should be provided for each branch circuit supplying electric heating equipment.

#### Also Available . . .

The CKTES(X)L Termination Kit, designed to connect TESL and TESXL heating cables to power, to faciliate circuit extension and for making cold-lead connections.

For more information about the CKTES(X)L Termination Kit, ask for the CKTES(X)L Spec Sheet.

