



**INDUSTRIAL GRADE
SELF-REGULATING
HEATING CABLES**

POWER OUTPUT GRAPHS

**WinterSafe
WinterSafe Plus
AutoWatt Xtra**

FM and CSA Approved



WinterSafe®

Self-Regulating Heating Cable

WSR

POWER
OUTPUT
GRAPH



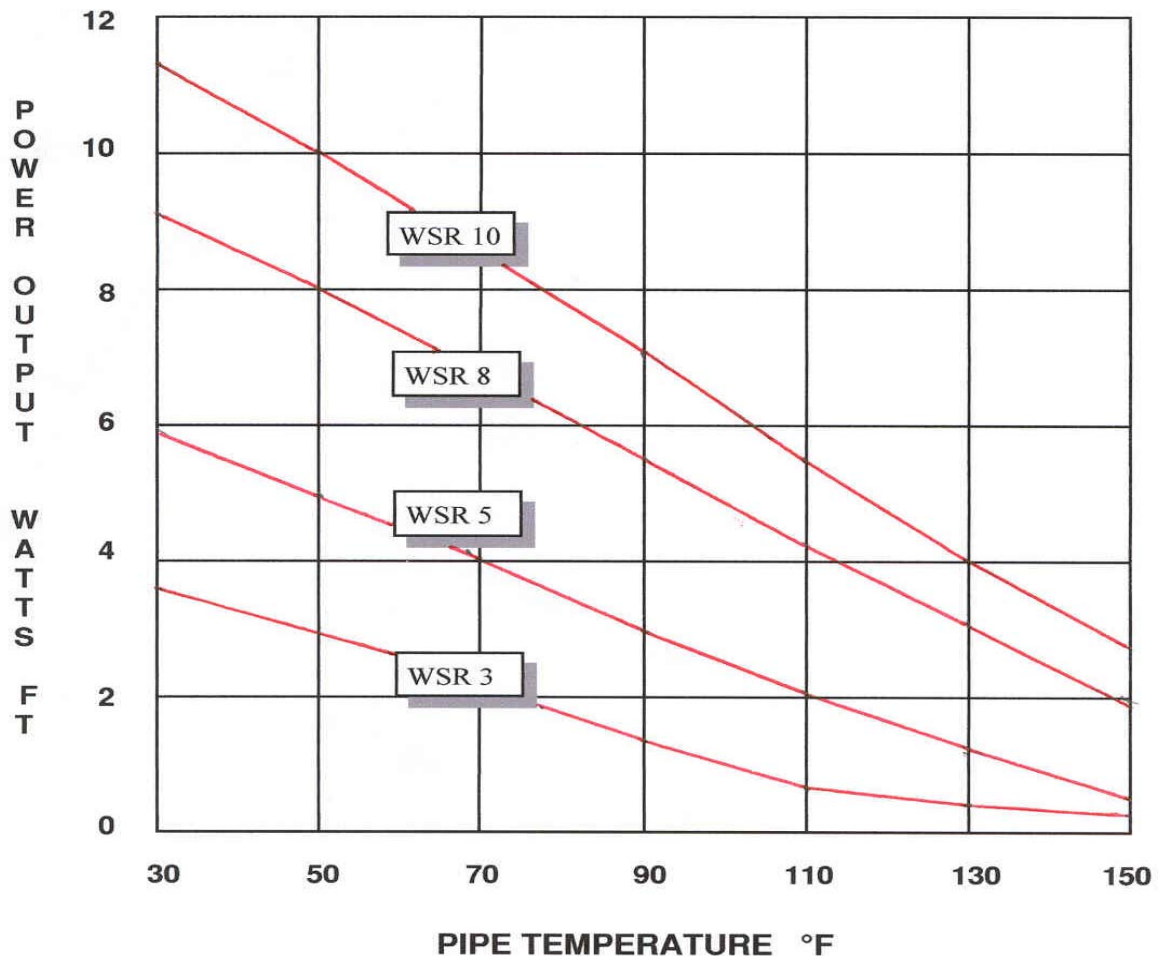
METAL PIPES

INTRODUCTION

WinterSafe is an industrial grade, self-regulating heating cable that may be used safely and reliably on both metal and plastic piping for applications ranging from simple freeze protection to process maintenance temperatures of 150° F.

The power output (watts/ft) of the heating cable varies with operating temperature. Use the graph below to determine the actual power output on each application based upon the operating temperature of the metal pipe. (Power output curves for WSR cables operating on plastic pipes are shown opposite).

POWER OUTPUT RATINGS ON INSULATED METAL PIPES



WinterSafe®

Self Regulating Heating Cable

WSR

POWER
OUTPUT
GRAPH



PLASTIC PIPES

INTRODUCTION

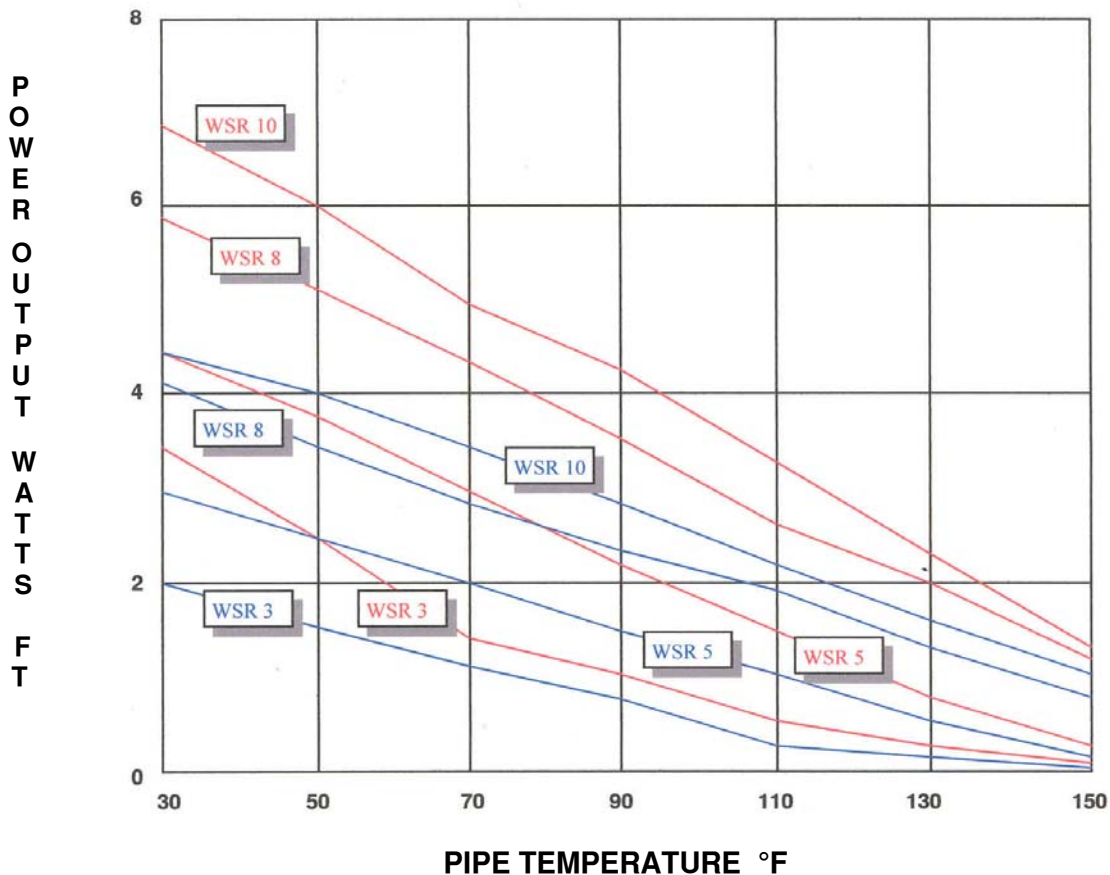
The thermal conductivity of plastics is roughly 150 times less than that of carbon steel. This lower thermal conductivity does not appreciably affect the steady state heat loss from the pipe; however, it does affect the thermal environment in the immediate vicinity of the WSR heating cable. The wall temperature of the pipe tends to increase locally and the self regulating design of the cable responds to this increased temperature by decreasing its power output.

This decreased power output from the heating cable must be taken into consideration when designing systems for plastic pipes. Use the following graph to determine the power output of WSR cables operating on plastic pipes.

The **BLUE** curves show power outputs of cables installed directly on plastic pipe **WITHOUT** IAAT3 aluminum heat transfer tape.

The **RED** curves show power outputs of cables installed directly on plastic pipe and covered **WITH** IAAT3 aluminum heat transfer tape.

POWER OUTPUT RATINGS ON INSULATED PLASTIC PIPES WITH AND WITHOUT THE USE OF IAAT3 ALUMINUM TAPE



WinterSafe Plus®

Self Regulating Heating Cable



WSP

POWER
OUTPUT
GRAPH

METAL PIPES

INTRODUCTION

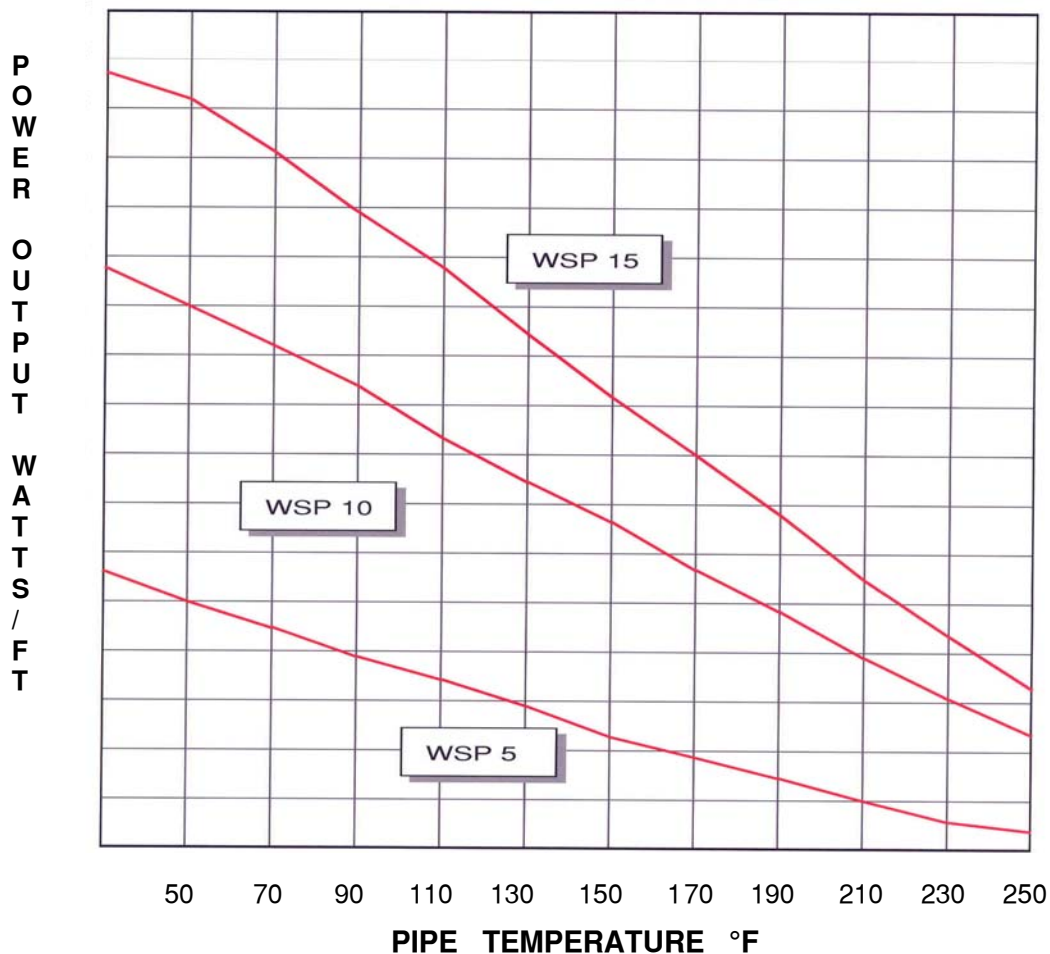
WinterSafe Plus is a high temperature, industrial grade, self-regulating heating cable that can be used on metal pipe applications ranging from simple freeze protection to process temperature maintenance of 250° F.

WinterSafePlus, with its high temperature exposure rating of 366°F, can be installed and

used safely on piping that may require routine or periodic steam cleaning or purging.

The power output (watts/ft) of a self-regulating heating cable varies with operating temperature. Use the graph shown below to determine the actual power output on each application based upon the operating temperature of the pipe.

POWER OUTPUT RATINGS ON INSULATED METAL PIPES



AutoWatt Xtra®

Self Regulating Heating Cable

AWX

POWER
OUTPUT
GRAPH



METAL PIPES

INTRODUCTION

AutoWatt Xtra is a high temperature, industrial grade, self-regulating heating cable with exceptional design and application capabilities. The product can be used on all sizes of metal piping for applications ranging from basic freeze protection to process maintenance temperatures of 375° F.

AutoWatt Xtra safely tolerates intermittent exposure temperatures of 450°F.

This product is ideal for use on process piping that may require routine or periodic steam cleaning or purging.

The power output (watts / ft) of a self-regulating heating cable varies with operating temperature. Use the graph shown below to determine the actual power output on each application based upon the operating temperature of the pipe.

**POWER OUTPUT RATINGS
ON INSULATED METAL PIPES**

