

# Cost Value Analysis

## Mag Crane Cable Assembly

### CHALLENGE

Faced with increasing costs due to failure and downtime, a leading steel producer was in critical need of a quality Mag Crane Assembly to withstand high temperatures for an extended period of time.

### SOLUTION

Radix Wire and Cable Engineered Solutions developed a high heat resistant product, using our Tempergard 2000 cable with a stainless steel overbraid and Oval Power connector.

### RESULT

With the new Mag Crane Assembly installed at the steel facility, the frequency of replacements reduced greatly, resulting in significant cost and downtime savings.



### Radix vs. Previous Product

■ Previous Product ■ Radix Product



Application Variables	Previous Product	Radix Product
Material Cost	\$45,000	\$9,851
Freight Cost	\$255	\$255
Labor Cost	\$15,000	\$600
<b>Total Cost</b>	<b>\$60,255</b>	<b>\$10,706</b>
Production Downtime	Previous Product	Radix Product
# Used Annually	100	12
Downtime to Replace Assembly	1.50	0.50
<b>Total Production Downtime</b>	<b>150.00</b>	<b>6.00</b>

**Overall Product Cost Savings**  
= **\$49,549**

**Increased Production Hours = 144**  
\*Average Downtime Costs for Large-Scale Plants (\$/hr) = \$18,000  
**Total Downtime Savings**  
= **\$2,592,000**

# TEMPERGARD 2000

HIGH-TEMPERATURE LEAD WIRE

450C/600V and 538C/600V

## RATINGS / APPROVALS

450°C - 600 Volts - Continuous temperature rating under normal service conditions

450°C - 600 Volts - Temporary temperature rating for short periods

Maintains circuit integrity 2.5 hrs under ICEA T-29-520

210,000 BTU/hr Vertical Cable Tray Flame Test

RoHS Compliant

## CONSTRUCTION

### Conductors

18 AWG - 2 AWG

Stranded nickel-coated copper - 27%  
(Other conductor materials available)

### Insulating System

Reinforced mica glass tape

Fiberglass braid with high temperature finish

Fire barrier tape wraps

PTFE moisture and fluid barrier

### Outer Covering

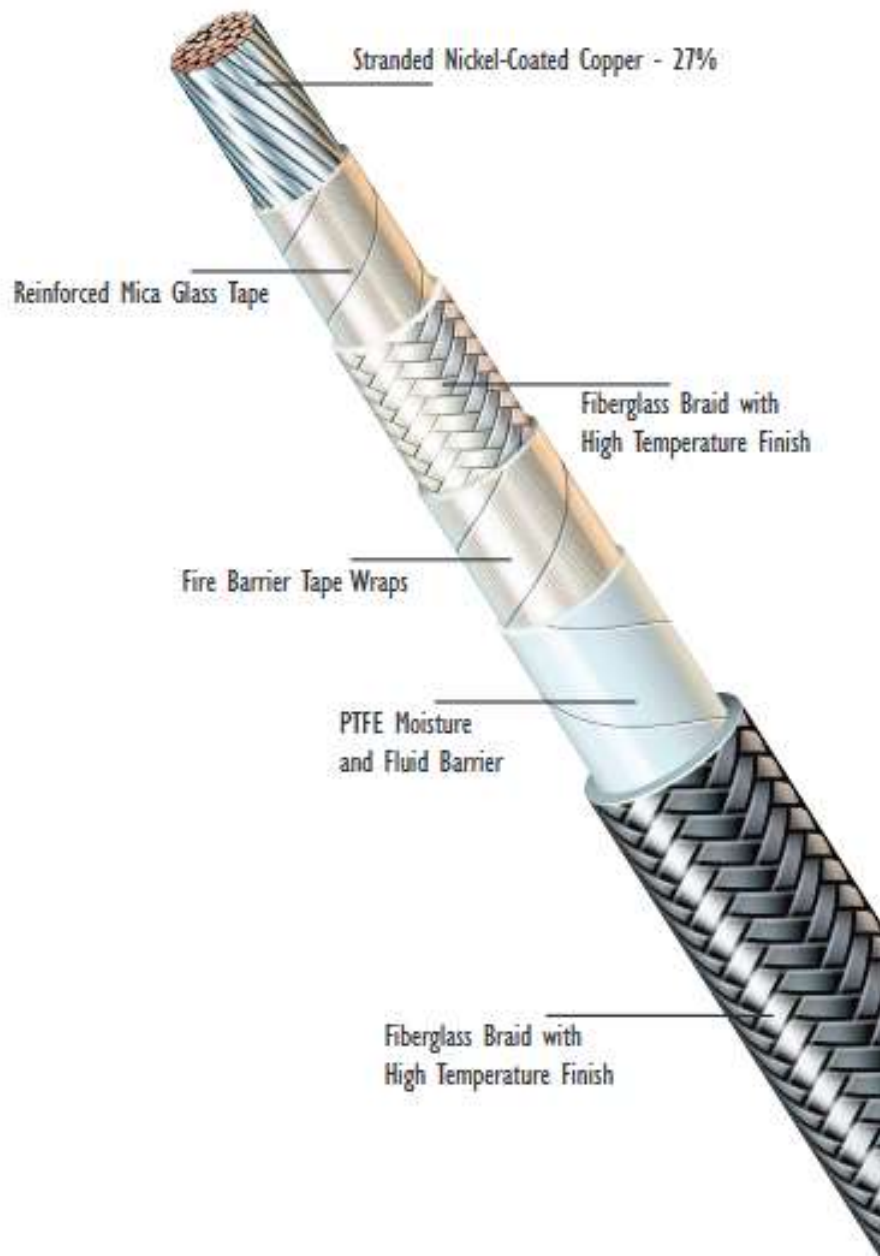
Braided fiberglass with high temperature finish

### Standard Color Coding

Black or Natural

## CHARACTERISTICS

- Moisture, oil, fluid, and abrasion resistant
- Composed of flame-impervious inorganic materials
- Withstands mechanical abuse
- Not recommended for outdoor use



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# TEMPERGARD 2000

## HIGH-TEMPERATURE LEAD WIRE

### SPECIFICATIONS

#### TEMPERGARD 2000 450C(538C)/600V

Part No.	Awg. Size	# Strands	Outer Dia. inches	Outer Dia. mm	Wgt. (lbs/Mft)	Wgt (kg/km)	Min. Bend Radius (in)	UL	CSA
BKT18C016	18	16	0.167	4.24	11	18.61	1.34	N/A	N/A
BKT16C026	16	26	0.179	4.55	15	23.43	1.43	N/A	N/A
BKT14C041	14	41	0.189	4.80	22	31.43	1.51	N/A	N/A
BKT12C065	12	65	0.213	5.41	31	40.14	1.70	N/A	N/A
BKT10C105	10	105	0.266	6.76	83	66.91	2.13	N/A	N/A
BKT08C133	8	133	0.316	8.03	79	95.19	2.53	N/A	N/A
BKT06C133	6	133	0.357	9.07	113	133.62	2.86	N/A	N/A
BKT04C133	4	133	0.408	10.36	167	183.51	3.26	N/A	N/A
BKT02C133	2	133	0.482	12.24	259	279.70	3.86	N/A	N/A

Standard conductor: Nickel Coated Copper - 27%  
 Consult factory for alternative conductor and stranding options.

All dimensions listed above are nominal information included in this catalog is intended as a guideline only. For applications that require tight tolerances, please contact the Radix factory for dimensional verification. Information herein is believed to be accurate as of publication date; however, if an error exists it is unintentional and Radix Wire & Cable is not responsible for any claim traceable to such error.

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