

# Berk-Tek LANmark-C541 Cat 5e High Flex 2-Pr Shielded TPE



Berk-Tek LANmark Industrial Heavy-Duty Ethernet Cables enable the expansion and integration of Ethernet into the Industrial environment. With over 50 years of manufacturing expertise, you can be sure these Industrial Cables will perform both mechanically and electrically. With its 600V AWM design, durable TPE jacket, cold-bend performance, and resistance to oil, weld spatter, and sunlight, this cable is suitable for the most demanding, continuous-motion, industrial applications. This product has both a foil shield and a braid to protect against low- and high-frequency noise on the factory floor. Additionally, the stranded conductors also help maintain performance in a high-vibration environment. It is also suitable for cable tray installations.

## DESCRIPTION

### Construction

24 AWG stranded tinned copper wire insulated with HDPE. Two insulated conductors twisted together to form a pair and two such pairs to form the basic unit, enclosed by polypropylene tape, an aluminum/polyester tape shield and 38 AWG braid with 75% optical coverage and TPE jacket.

### Related Standards

Low Voltage - EU Directive 2014/35/EU, CE Approved

RoHS - EU Directive 2011/65/EU

PoE+ - Type 2 (802.3at)

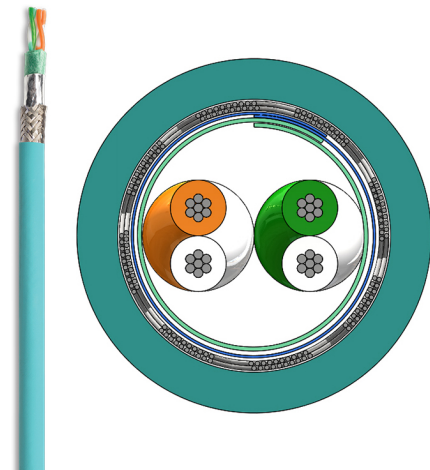
ODVA EtherNet/IP™ Compliant

### Agency Ratings

Description	Method	
Listed Type	UL1685	CM
Listed Type	UL444	CMX Outdoor
Oil Resistance	UL1277 11.2	II (75°C)
Sunlight Resistance	UL444 7.22	Yes (720 hrs)

### Attributes

Description	Method	
AWM Style	UL758	2463 (600V, 80°C)
Flex Life	C-Track, 4" radius	> 35 million cycles
Flex Life	Torsion (+/- 270°)	> 3 million cycles
Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.04 inch	TIA 568-C.0	25 lbs.
Abrasion	UL2556 7.10	75 cycles/1.5 lb. load



**EtherNet/IP™**  
ODVA Compliant

## STANDARDS

**International** ISO/IEC 11801;  
ODVA EtherNet/IP Compliant

**National** ANSI/TIA 568.2-D;  
UL 444

# Berk-Tek LANmark-C541 Cat 5e High Flex 2-Pr Shielded TPE

## CHARACTERISTICS

### Construction characteristics

Conductor material	24 AWG Stranded Tinned Copper (7/32)
Insulation	HDPE
Jacket Material	TPE
Braid	Tinned copper - 75% optical coverage
Shielding	Aluminum/Polyester
Core Tape	Foamed polypropylene

### Dimensional characteristics

Insulated conductor diameter (Nominal)	0.048 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.26 in
Nominal cable weight	34 lb/kft
Length per reel	1000.0 ft

### Electrical characteristics

Nominal velocity of propagation	68 %
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### Transmission characteristics



Insertion loss de-rating factor	1.2
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### Usage characteristics

Minimum Bending Radius - Install	2.08 in
Recommended installation temperature range	-20 .. 80 °C
Recommended operating temperature range	-40 .. 80 °C
Recommended storage temperature range	-40 .. 80 °C
Maximum cable length	83 m
Cold Bend	-40 °C
Weld spatter resistance	Yes

## PRODUCT LIST

Part Number	Description	Packaging	Colour
 11099202	LANmark-C541 Cat 5e High Flex 2-Pr Shielded TPE	Reel	Teal
 11102380	LANmark-C541 Cat 5e High Flex 2-Pr Shielded TPE	Reel	Black

 = Make to order,  = In stock

## LANMARK-C541 - TECHNICAL INFORMATION

Transmission Characteristics		
Description		
ISO/IEC 11801		Category 5
ANSI/TIA-568.2-D		Category 5e
Coupling Attenuation	IEC 61156-5	Type II
Transfer Impedance	IEC 61156-5	Grade 2
ODVA EtherNet/IP™ Compliant		Category 5e
Color Code		
Pair-1	White/Orange	Orange
Pair-2	White/Green	Green