DEFENDER®
ANTIMICROBIAL CABLE

PROVIDING A SOLUTION TO BACTERIA, FUNGUS AND MOLD GROWTH

TPC WIRE & CABLE CORP.
EXPECT HIGH PERFORMANCE®

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NEW DEFENDER® CABLE

ELIMINATES GREATER THAN 99% OF BACTERIA, FUNGUS AND MOLD

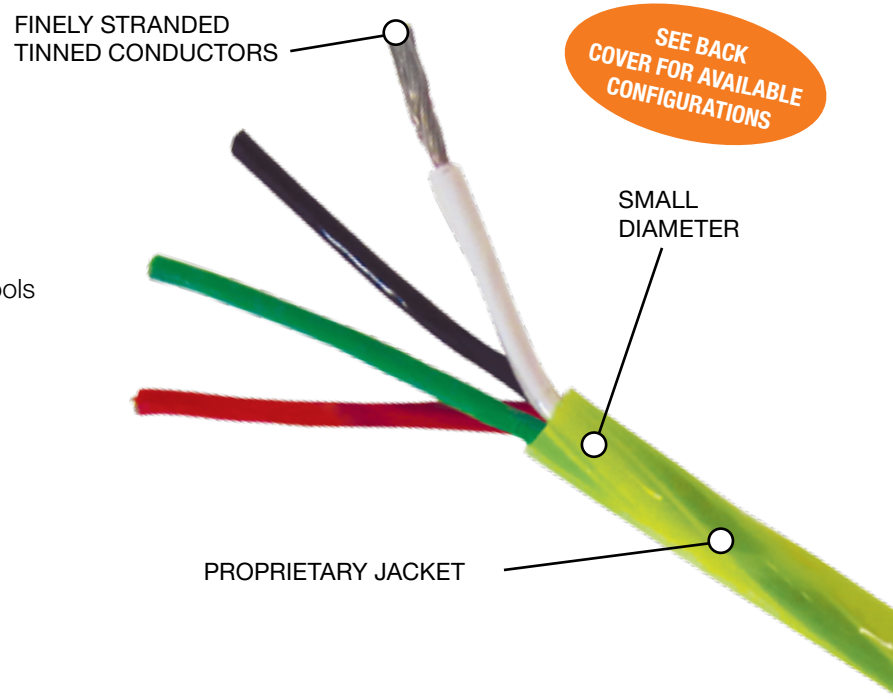
TPC designs and supplies high quality, high performance cord, cable and accessories that increase uptime and solve difficult problems in harsh industrial environments. ***DEFENDER®*** antimicrobial cable is the first product in this antimicrobial line to provide a solution to bacteria, fungus and mold growth on the cable jacket. A silver ion based antimicrobial additive provides built in lasting protection for the life of the cable while effectively eliminating greater than 99% of gram-negative and gram-positive bacteria, fungus and mold within 24 hours.

The presence of heat, moisture and organic materials in food processing plants create an ideal environment for bacteria, fungus and mold to grow on equipment. Stringent cleaning requirements are daily rituals in the food and beverage industry. *DEFENDER* antimicrobial cable adds another level of protection with its built in antimicrobial jacket. If a cable fails a visual inspection, the down time can cost a facility thousands of dollars in lost production. *DEFENDER* antimicrobial cable will increase the cable life in this harsh industrial environment while inhibiting bacteria, fungus and mold growth on the cable jacket.

- **Antimicrobial**
- **UL Recognized**
- **CSA Certified**
- **Superior Chemical Resistance**
- **VW1–UL Flame Test**
- **FT-1 CSA Flame Test**
- **600 Volt**
- **-60°C to +150°C**
- **RoHS Compliant**

APPLICATIONS

- Wash Down Areas
- Automated Packaging / Bagging Equipment
- Electronic Control Systems
- Power Supply for Fans, Pumps, Motors, Hand Tools
- Cable Carriers
- Conveyor Systems
- Coolers, Freezers, Ovens, Fryers
- Canning and Bottling Process Lines
- Pasta Drying Machinery
- Any application where fungus, bacteria or mold growth need to be controlled



TPC WIRE & CABLE CORP. 9600 VALLEY VIEW ROAD, MACEDONIA, OHIO 44056 WWW.TPCWIRE.COM USA **800-521-7935** FAX **866-528-2930**

FEATURES	BENEFITS
Proprietary Jacket	Provides excellent resistance to harsh chemicals including oils, acids and solvents. ***DEFENDER***® jacket also equips the jacket with long term broad-spectrum protection from bacteria, mold and fungus reducing cable change outs.
Has a Low Coefficient of Friction	Provides superior resistance to cutting and abrasion.
Bright Green Jacket Color	Allows for easy visual inspection.
Smaller Diameter	Easily fits through conduit or around tight spaces.
Finely Stranded Tinned Conductors	Provides greater flex life in dynamic conditions and protects from corrosion and oxidation in chemical and high temperature environments.

TESTING METHODS

Highly effective ***DEFENDER***® **Antimicrobial Cable** efficacy has been confirmed by independent lab test results. Photos below show the amount of E.Coli and Staph bacteria cultivated for 14 days after 24 hours of exposure to the *DEFENDER* antimicrobial cable jacket versus a cable jacket without antimicrobial agents. The photos have not been altered in any way.

E. COLI GROWTH
No Antimicrobial Additive

E. COLI NO GROWTH
With Antimicrobial Additive

STAPH GROWTH
No Antimicrobial Additive

STAPH NO GROWTH
With Antimicrobial Additive

TYPES OF BACTERIA, FUNGUS AND MOLD

Gram-Negative Bacteria: E. Coli, Salmonella, Shigella, Serratia Marcesceus (Pink Mold), Enterobacteriaceae, Pseudomonas, Moraxella, Helicobacter, Stenotrophomonas, Bdellovibrio, Acetic Acid Bacterial, Legionella, Cyanobacteria, Spirochaetes, Green Sulfur Bacteria and Green Non-Sulfur Bacteria

Gram-Positive Bacteria: Staph Aureus, Listeria, S. Epidermidis, S. Saphrophyticus, S. Haemolyticus, S. Hominis, S. Capitis, S. Schleiferi, S. Warneri, S. Lugdenenis, Strep Pyrogenes, S. Agalactiae, E. Faecalis and E. Faecium

Fungus: Zygomycota, Ascomycota, Basidiomycota and Deuteromycota

Mold: Aspergillus Niger (Black Mold), Cladosporium, Fusarium, Mucor, Penicillium, Rhizopus, Stachybotrys, Trichoderma and Alternaria

ORDERING INFORMATION

UNSHIELDED					
Part No.	**AWG/Cond**	**Conductor Stranding**	**Nominal O.D.** (In.)	**Ampacity** (1)	**Wt** (Lbs) **per 1000 ft**
52128	12/4	65/30	.335	48	133
52124	14/4	105/34	.270	37	86
52127	14/8	105/34	.354	24	165
*52125	14/12	105/34	.383	23	210
52126	16/4	65/34	.225	21	59
52129	16/8	65/34	.295	18	115
*52130	16/12	65/34	.365	13	152
*52122	18/4	41/34	.200	16	41
*52123	18/12	41/34	.315	10	98

SHIELDED					
Part No.	**AWG/Cond**	**Conductor Stranding**	**Nominal O.D.** (In.)	**Ampacity** (1)	**Wt** (Lbs) **per 1000 ft**
*52118	12/4	65/30	.370	48	154
*52117	14/4	105/34	.290	37	104
52116	16/4	65/34	.245	21	77
*52120	16/12	65/34	.385	13	176
*52114	18/3	65/36	.205	16	46
*52115	18/4	41/34	.220	16	56
*52119	18/12	41/34	.345	10	123

NOTE: (1) Ampacities are based on conductors in free air, 40°C (104°F) ambient, 150°C (302°F) conductor temperature.

**Call for Availability*

TPC CAN PROVIDE CUSTOM CONFIGURATIONS.

PRODUCT DISCLAIMER: *Antimicrobial properties are built in to inhibit the growth of bacteria that may affect this product. The additives can not leach out of this product. The antimicrobial properties do not protect users or others against bacteria, viruses, germs or other disease organisms. Always clean and wash this product in accordance with required cleaning procedures.*

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