

# Xtra-Guard® Performance Cable

Wire & Cable  
Solution

we make the difference

Tel. +41 (0) 43 433 56 01 / info@wacs.ch

authorized distributor



AlphaWire

*Cables you trust. Service you deserve.*

# Xtra-Guard® 4

Advanced High/Low-Temperature Performance



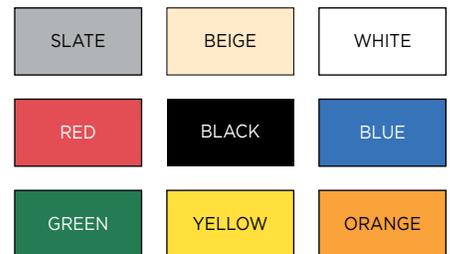
### Features

- The preferred outdoor cable for advanced temperature performance
- Temperature range from -50°C to +125°C
- High-performance TPE insulation and jacket offering 3x the low-temperature flexibility of conventional PVC
- Solvent and water resistant
- Fast, easy stripping of insulation and jacket
- Color-coded, tinned copper conductors
- 300 V and 600 V
- Unshielded, foil shielded, or Supra-Shield® Foil + Braid
- Outstanding ultraviolet light stability in all jacket colors
- Nylon ripcord for easy jacket stripping
- Approved by the US Mine Safety and Health Administration and The Pennsylvania Department of Environmental Protection

- UL Types TC, PLTC, and WTTC
- CSA AWM I A/B II A/B FT1
- Passes UL 1685 Vertical Tray Flame Test

### Applications

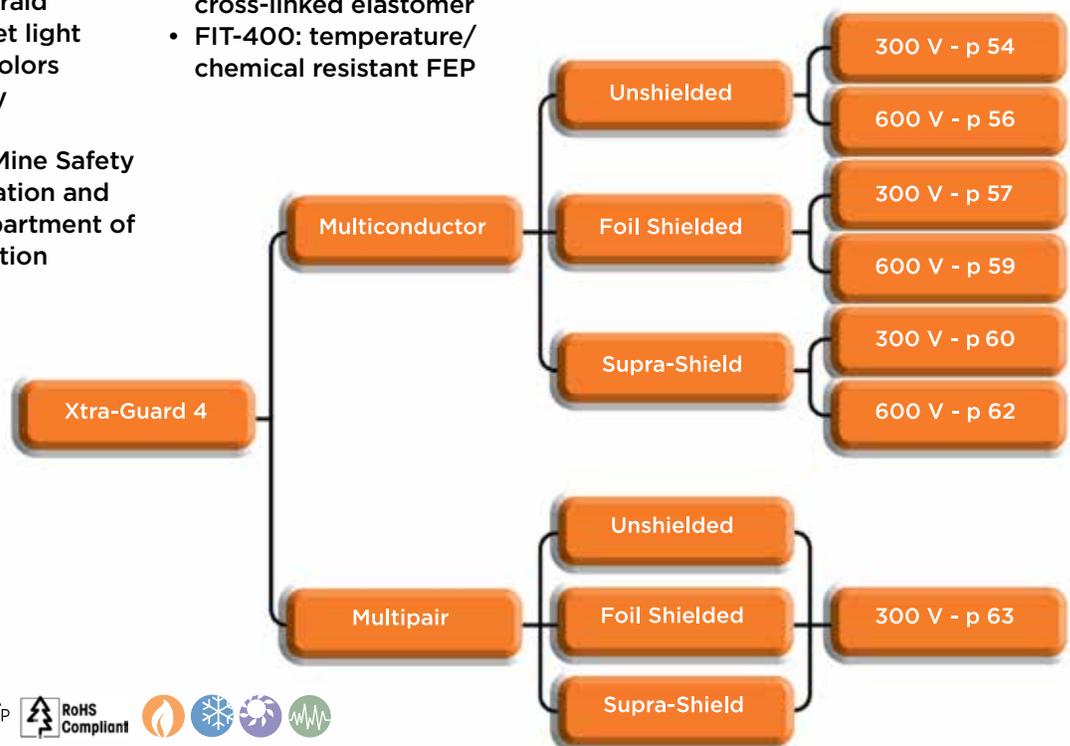
- Wood, paper, pulp, plant operations
- Mining instruments and controls
- Mass transit systems
- Military electronic applications
- Food and beverage plants
- Petrochemical process controls
- Arctic pipeline controls



Xtra-Guard cables are available in a range of long-lasting colors for fast, easy identification, for safety reasons, and for matching the color of your system.

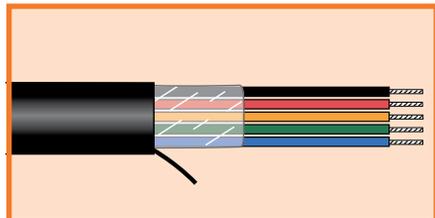
### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Unshielded, Multiconductor



**UL AWM 20237**  
**UL PLTC\***  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 & 20 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- 24, 22 AWG: Chart E
- 20, 18, 16 AWG: Chart D
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 24 AWG (0.23 mm²)\*

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45012</b>	2	0.200	5.08	0.042	1.07
<b>45013</b>	3	0.209	5.31	0.042	1.07
<b>45014</b>	4	0.224	5.69	0.042	1.07
<b>45016</b>	6	0.257	6.53	0.042	1.07
<b>45018</b>	8	0.275	6.99	0.042	1.07
<b>45020</b>	10	0.312	7.92	0.042	1.07
<b>45020/15</b>	15	0.347	8.81	0.042	1.07
<b>45020/20</b>	20	0.383	9.73	0.042	1.07
<b>45020/25</b>	25	0.424	10.77	0.042	1.07

\* UL AWM 20237, CSA AWM I/II A/B FT1 only

## 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45002</b>	2	0.218	5.54	0.045	1.14
<b>45003</b>	3	0.228	5.79	0.045	1.14
<b>45004</b>	4	0.244	6.20	0.045	1.14
<b>45006</b>	6	0.281	7.14	0.045	1.14
<b>45008</b>	8	0.301	7.65	0.045	1.14
<b>45010</b>	10	0.342	8.69	0.045	1.14
<b>45010/15</b>	15	0.380	9.65	0.045	1.14
<b>45010/20</b>	20	0.441	11.20	0.055	1.40
<b>45010/25</b>	25	0.486	12.34	0.055	1.40

## 20 AWG (0.56 mm²)

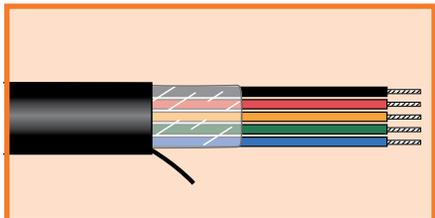
Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45052</b>	2	0.234	5.94	0.045	1.14
<b>45053</b>	3	0.245	6.22	0.045	1.14
<b>45054</b>	4	0.264	6.71	0.045	1.14
<b>45056</b>	6	0.306	7.77	0.045	1.14
<b>45058</b>	8	0.328	8.33	0.045	1.14
<b>45060</b>	10	0.374	9.50	0.045	1.14
<b>45060/15</b>	15	0.437	11.10	0.055	1.40
<b>45060/20</b>	20	0.483	12.27	0.055	1.40
<b>45060/25</b>	25	0.534	13.56	0.055	1.40



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300 V Unshielded, Multiconductor



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- 24, 22 AWG: Chart E
- 20, 18, 16 AWG: Chart D
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45062</b>	2	0.252	6.40	0.045	1.14
<b>45062/1*</b>	2	0.252	6.40	0.045	1.14
<b>45063</b>	3	0.264	6.71	0.045	1.14
<b>45063/1*</b>	3	0.264	6.71	0.045	1.14
<b>45064</b>	4	0.285	7.24	0.045	1.14
<b>45066</b>	6	0.333	8.46	0.045	1.14
<b>45068</b>	8	0.358	9.09	0.045	1.14
<b>45070</b>	10	0.430	10.92	0.055	1.40
<b>45070/15</b>	15	0.479	12.17	0.055	1.40
<b>45070/20</b>	20	0.530	13.46	0.055	1.40
<b>45070/25</b>	25	0.588	14.94	0.055	1.40

\*Conductors color-coded per international standards: brown, blue, green/yellow.

## 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.016 (0.41 mm)

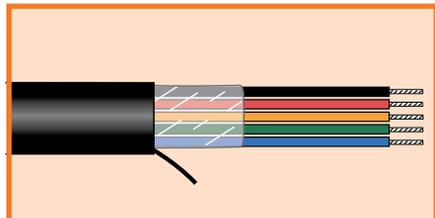
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45072</b>	2	0.276	7.01	0.045	1.14
<b>45072/1*</b>	2	0.276	7.01	0.045	1.14
<b>45073</b>	3	0.290	7.37	0.045	1.14
<b>45073/1*</b>	3	0.290	7.37	0.045	1.14
<b>45074</b>	4	0.314	7.98	0.045	1.14
<b>45076</b>	6	0.369	9.37	0.045	1.14
<b>45078</b>	8	0.418	10.62	0.055	1.40
<b>45080</b>	10	0.478	12.14	0.055	1.40
<b>45080/15</b>	15	0.534	13.56	0.055	1.40
<b>45080/20</b>	20	0.593	15.06	0.055	1.40
<b>45080/25</b>	25	0.680	17.27	0.055	1.40

\*Conductors color-coded per international standards: brown, blue, green/yellow.



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600 V Unshielded, Multiconductor



**UL AWM 20238**  
**UL TC, WTTTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart E
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45422</b>	2	0.336	8.53	0.055	1.40
<b>45423</b>	3	0.353	8.97	0.055	1.40
<b>45424</b>	4	0.383	9.73	0.055	1.40
<b>45425</b>	5	0.416	10.57	0.055	1.40
<b>45427</b>	7	0.450	11.43	0.055	1.40
<b>45429</b>	9	0.519	13.18	0.055	1.40

## 16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45432</b>	2	0.360	9.14	0.055	1.40
<b>45433</b>	3	0.379	9.63	0.055	1.40
<b>45434</b>	4	0.412	10.46	0.055	1.40
<b>45435</b>	5	0.448	11.38	0.055	1.40
<b>45437</b>	7	0.486	12.34	0.055	1.40
<b>45439</b>	9	0.583	14.81	0.065	1.65

## 14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

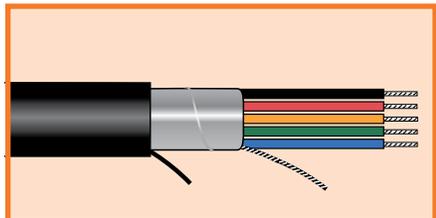
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45442*</b>	2	0.390	9.91	0.055	1.40
<b>45443*</b>	3	0.412	10.46	0.055	1.40
<b>45444*</b>	4	0.448	11.38	0.055	1.40
<b>45445*</b>	5	0.489	12.42	0.055	1.40
<b>45447*</b>	7	0.551	14.00	0.065	1.65

\* Not MSHA



# Xtra-Guard® 4

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300 V Foil Shielded, Multiconductor



**UL AWM 20237**  
**UL PLTC\***  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 & 20 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- 24, 22 AWG: Chart E
- 20, 18, 16 AWG: Chart D
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 24 AWG (0.23 mm<sup>2</sup>)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45092	2	0.204	5.18	0.042	1.07
45093	3	0.213	5.41	0.042	1.07
45094	4	0.228	5.79	0.042	1.07
45096	6	0.261	6.63	0.042	1.07
45098	8	0.279	7.09	0.042	1.07
45100	10	0.316	8.03	0.042	1.07
45100/15	15	0.351	8.92	0.042	1.07
45100/20	20	0.387	9.83	0.042	1.07
45100/25	25	0.428	10.87	0.042	1.07

\* UL AWM 20237, CSA AWM I/II A/B FT1 only

## 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45192	2	0.222	5.64	0.045	1.14
45193	3	0.232	5.89	0.045	1.14
45194	4	0.248	6.30	0.045	1.14
45196	6	0.285	7.24	0.045	1.14
45198	8	0.305	7.75	0.045	1.14
45199/10	10	0.346	8.79	0.045	1.14
45199/15	15	0.404	10.26	0.055	1.40
45199/20	20	0.445	11.30	0.055	1.40
45199/25	25	0.490	12.45	0.055	1.40

## 20 AWG (0.56 mm<sup>2</sup>)

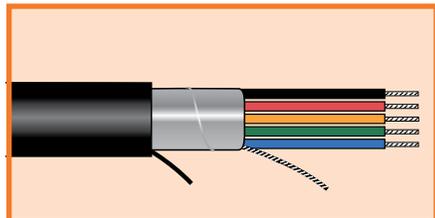
Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45462	2	0.238	6.05	0.045	1.14
45463	3	0.249	6.32	0.045	1.14
45464	4	0.268	6.81	0.045	1.14
45466	6	0.310	7.87	0.045	1.14
45468	8	0.332	8.43	0.045	1.14
45470	10	0.378	9.60	0.045	1.14
45470/15	15	0.441	11.20	0.055	1.40
45470/20	20	0.487	12.37	0.055	1.40
45470/25	25	0.538	13.67	0.055	1.40
45470/40	40	0.650	16.51	0.065	1.65



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**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- -50°C to +125°C

### Conductor Color Coding

- 24, 22 AWG: Chart E
- 20, 18, 16 AWG: Chart D
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45382</b>	2	0.256	6.50	0.045	1.14
<b>45382/1*</b>	2	0.256	6.50	0.045	1.14
<b>45383</b>	3	0.268	6.81	0.045	1.14
<b>45383/1*</b>	3	0.268	6.81	0.045	1.14
<b>45384</b>	4	0.289	7.34	0.045	1.14
<b>45386</b>	6	0.337	8.56	0.045	1.14
<b>45388</b>	8	0.362	9.19	0.045	1.14
<b>45390</b>	10	0.434	11.02	0.055	1.40
<b>45390/15</b>	15	0.483	12.27	0.055	1.40
<b>45390/20</b>	20	0.534	13.56	0.055	1.40
<b>45390/25</b>	25	0.592	15.04	0.055	1.40
<b>45390/30</b>	30	0.645	16.38	0.065	1.65

\*Conductors color-coded per international standards: brown, blue, green/yellow.

## 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.016 (0.41 mm)

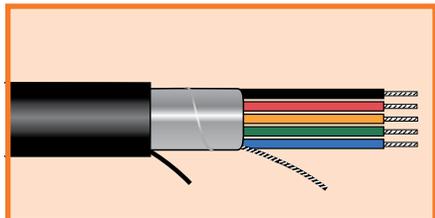
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45362</b>	2	0.280	7.11	0.045	1.14
<b>45362/1*</b>	2	0.280	7.11	0.045	1.14
<b>45363</b>	3	0.294	7.47	0.045	1.14
<b>45363/1*</b>	3	0.294	7.47	0.045	1.14
<b>45364</b>	4	0.318	8.08	0.045	1.14
<b>45366</b>	6	0.373	9.47	0.045	1.14
<b>45368</b>	8	0.422	10.72	0.045	1.14
<b>45370</b>	10	0.482	12.24	0.055	1.40
<b>45370/15</b>	15	0.538	13.67	0.055	1.40
<b>45370/20</b>	20	0.597	15.16	0.055	1.40
<b>45370/25</b>	25	0.684	17.37	0.065	1.65

\*Conductors color-coded per international standards: brown, blue, green/yellow.



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### Operating Temperature

- -50°C to +125°C

### Conductor Color Coding

- Chart E
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### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
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### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45430/2</b>	2	0.340	8.64	0.055	1.40
<b>45430/3</b>	3	0.357	9.07	0.055	1.40
<b>45430/4</b>	4	0.387	9.83	0.055	1.40
<b>45430/5</b>	5	0.420	10.67	0.055	1.40
<b>45430/7</b>	7	0.454	11.53	0.055	1.40
<b>45430/9</b>	9	0.543	13.79	0.055	1.40
<b>45430/12</b>	12	0.599	15.21	0.065	1.65

## 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45440/2</b>	2	0.364	9.25	0.055	1.40
<b>45440/3</b>	3	0.383	9.73	0.055	1.40
<b>45440/5</b>	5	0.452	11.48	0.055	1.40
<b>45440/7</b>	7	0.490	12.45	0.055	1.40
<b>45440/9</b>	9	0.587	14.91	0.065	1.65
<b>45440/12</b>	12	0.649	16.48	0.065	1.65

## 14 AWG (2.08 mm<sup>2</sup>)

Stranding: 41/30 (41 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

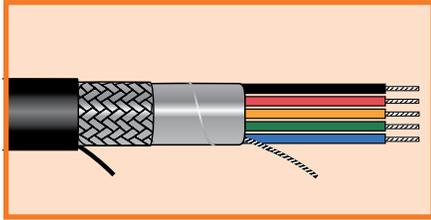
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45450/2*</b>	2	0.394	10.01	0.055	1.40
<b>45450/3*</b>	3	0.416	10.57	0.055	1.40
<b>45450/5*</b>	5	0.493	12.52	0.055	1.40
<b>45450/7*</b>	7	0.555	14.10	0.065	1.65
<b>45450/15*</b>	15	0.775	19.69	0.065	1.65

\* Not MSHA



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300 V Supra-Shield® Foil + Braid, Multiconductor



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**UL PLTC**  
**CSA AWM I/II A/B FT1**  
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**NEC Class 1, Div 2 (22 & 20 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

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- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45112	2	0.228	5.79	0.042	1.07
45113	3	0.237	6.02	0.042	1.07
45114	4	0.252	6.40	0.042	1.07
45116	6	0.285	7.24	0.042	1.07
45118	8	0.303	7.70	0.042	1.07
45120	10	0.340	8.64	0.042	1.07
45120/15	15	0.375	9.53	0.042	1.07
45120/20	20	0.411	10.44	0.042	1.07
45120/25	25	0.452	11.48	0.042	1.07

\* UL AWM 20237, CSA AWM I/II A/B FT1 only

## 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45102	2	0.246	6.25	0.045	1.14
45103	3	0.256	6.50	0.045	1.14
45104	4	0.272	6.91	0.045	1.14
45106	6	0.309	7.85	0.045	1.14
45108	8	0.329	8.36	0.045	1.14
45110	10	0.370	9.40	0.045	1.14
45110/15	15	0.428	10.87	0.055	1.40
45110/20	20	0.469	11.91	0.055	1.40
45110/25	25	0.514	13.06	0.055	1.40

## 20 AWG (0.56 mm²)

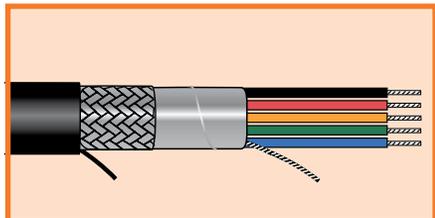
Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45152	2	0.262	6.65	0.045	1.14
45153	3	0.273	6.93	0.045	1.14
45154	4	0.292	7.42	0.045	1.14
45156	6	0.334	8.48	0.045	1.14
45158	8	.0356	9.04	0.045	1.14
45160	10	0.422	10.72	0.055	1.40
45160/15	15	0.465	11.81	0.055	1.40
45160/20	20	0.511	12.98	0.055	1.40
45160/25	25	0.562	14.27	0.055	1.40



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Supra-Shield® Foil + Braid, Multiconductor



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- 24, 22 AWG: Chart E
- 20, 18, 16 AWG: Chart D
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors Tinned copper braid, 70% coverage min.
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45162</b>	2	0.280	7.11	0.045	1.14
<b>45162/1*</b>	2	0.280	7.11	0.045	1.14
<b>45163</b>	3	0.292	7.42	0.045	1.14
<b>45163/1*</b>	3	0.292	7.42	0.045	1.14
<b>45164</b>	4	0.313	7.95	0.045	1.14
<b>45166</b>	6	0.361	9.17	0.045	1.14
<b>45168</b>	8	0.406	10.31	0.045	1.14
<b>45170</b>	10	0.458	11.63	0.055	1.40
<b>45170/15</b>	15	0.507	12.88	0.055	1.40
<b>45170/20</b>	20	0.558	14.17	0.055	1.40
<b>45170/25</b>	25	0.636	16.15	0.065	1.65
<b>45170/30</b>	30	0.675	17.15	0.065	1.65

\*Conductors color-coded per international standards: brown, blue, green/yellow.

## 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.016 (0.41 mm)

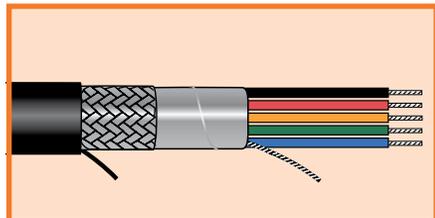
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45172</b>	2	0.304	7.72	0.045	1.14
<b>45172/1*</b>	2	0.304	7.72	0.045	1.14
<b>45173</b>	3	0.318	8.08	0.045	1.14
<b>45173/1*</b>	3	0.318	8.08	0.045	1.14
<b>45174</b>	4	0.342	8.69	0.045	1.14
<b>45176</b>	6	0.417	10.59	0.055	1.40
<b>45178</b>	8	0.446	11.33	0.055	1.40
<b>45180</b>	10	0.506	12.85	0.055	1.40
<b>45180/15</b>	15	0.562	14.27	0.055	1.40
<b>45180/20</b>	20	0.641	16.28	0.065	1.65
<b>45180/25</b>	25	0.714	18.14	0.065	1.65

\*Conductors color-coded per international standards: brown, blue, green/yellow.



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
600 V Supra-Shield® Foil + Braid, Multiconductor



**UL AWM 20238**  
**UL TC, WTTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart E
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors
- Tinned copper braid, 70% coverage min.
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45522	2	0.364	9.25	0.055	1.40
45523	3	0.381	9.68	0.055	1.40
45524	4	0.411	10.44	0.055	1.40
45525	5	0.444	11.28	0.055	1.40
45527	7	0.478	12.14	0.055	1.40
45529	9	0.567	14.40	0.065	1.65
45529/12	12	0.623	15.82	0.065	1.65

## 16 AWG (1.23 mm²)

Stranding: 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45532	2	0.388	9.86	0.055	1.40
45533	3	0.407	10.34	0.055	1.40
45534	4	0.440	11.18	0.055	1.40
45535	5	0.476	12.09	0.055	1.40
45537	7	0.514	13.06	0.055	1.40
45539	9	0.611	15.52	0.065	1.65
45539/12	12	0.679	17.25	0.065	1.65

## 14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)  
Insulation thickness: 0.032 (0.81 mm)

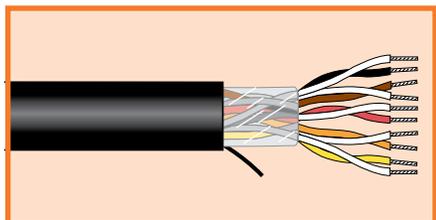
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45542*	2	0.418	10.62	0.055	1.40
45543*	3	0.440	11.18	0.055	1.40
45544*	4	0.476	12.09	0.055	1.40
45545*	5	0.517	13.13	0.055	1.40
45547*	7	0.579	14.71	0.065	1.65
45549*	9	0.672	17.07	0.065	1.65

\* Not MSHA



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Unshielded, Multipair



18 AWG (0.81 mm <sup>2</sup> )					
Stranding: 16/30 (16 x 0.25 mm) Insulation thickness: 0.016 (0.41 mm)					
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45031</b>	1	0.252	6.40	0.045	1.14
<b>45032</b>	2	0.353	8.97	0.045	1.14

**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2**

### Operating Temperature

- -50°C to +125°C

### Conductor Color Coding

- Chart B
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

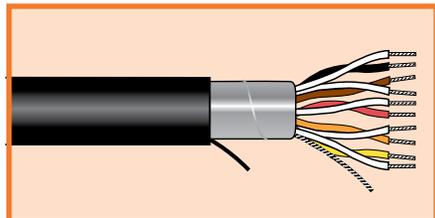
### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Foil Shield, Multipair



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart B
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45491</b>	1	0.204	5.18	0.042	1.07
<b>45492</b>	2	0.276	7.01	0.042	1.07
<b>45493</b>	3	0.290	7.37	0.042	1.07
<b>45494</b>	4	0.314	7.98	0.042	1.07
<b>45495</b>	5	0.341	8.66	0.042	1.07
<b>45496</b>	6	0.370	9.40	0.042	1.07
<b>45499</b>	9	0.428	10.87	0.042	1.07
<b>45499/11</b>	11	0.459	11.66	0.042	1.07
<b>45499/15</b>	15	0.516	13.11	0.042	1.07
<b>45499/27</b>	27	0.679	17.25	0.053	1.35

\* UL AWM 20237, CSA AWM I/II A/B FT1 only

## 22 AWG (0.35 mm²)

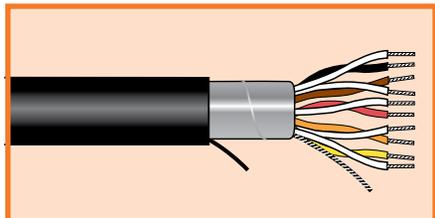
Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45481</b>	1	0.222	5.64	0.045	1.14
<b>45482</b>	2	0.301	7.65	0.045	1.14
<b>45483</b>	3	0.317	8.05	0.045	1.14
<b>45484</b>	4	0.344	8.74	0.045	1.14
<b>45485</b>	5	0.374	9.50	0.045	1.14
<b>45486</b>	6	0.425	10.80	0.055	1.40
<b>45489</b>	9	0.489	12.42	0.055	1.40
<b>45489/11</b>	11	0.525	13.34	0.055	1.40
<b>45489/15</b>	15	0.588	14.94	0.055	1.40



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Foil Shield, Multipair



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart B
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Aluminum/polyester foil shield, with 25% overlap and foil facing inward
- Tinned copper drain wire sized the same as cable conductors
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45451	1	0.238	6.05	0.045	1.14
45452	2	0.328	8.33	0.045	1.14
45453	3	0.346	8.79	0.045	1.14
45454	4	0.376	9.55	0.045	1.14
45455	5	0.430	10.92	0.055	1.40
45456	6	0.465	11.81	0.055	1.40
45459	9	0.537	13.64	0.055	1.40
45459/11	11	0.577	14.66	0.055	1.40
45459/15	15	0.668	16.97	0.065	1.65
45459/19	19	0.713	18.11	0.065	1.65
45459/27	27	0.885	22.48	0.065	1.65

## 18 AWG (0.81 mm<sup>2</sup>)

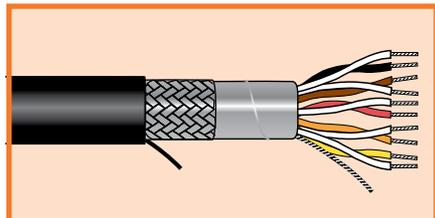
Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45371	1	0.256	6.50	0.045	1.14
45372	2	0.357	9.07	0.045	1.14
45373	3	0.378	9.60	0.045	1.14
45374	4	0.432	10.97	0.055	1.40
45375	5	0.470	11.94	0.055	1.40
45376	6	0.510	12.95	0.055	1.40
45379	9	0.591	15.01	0.055	1.40
45379/11	11	0.656	16.66	0.065	1.65
45379/15	15	0.736	18.69	0.065	1.65
45379/19	19	0.787	19.99	0.065	1.65



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Supra-Shield® Foil + Braid, Multipair



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart B
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min. Tinned copper drain wire sized the same as conductors
- Tinned copper braid, 70% coverage min.
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

24 AWG (0.23 mm <sup>2</sup> )					
Stranding: 7/32 (7 x 0.20 mm) Insulation thickness: 0.016 (0.41 mm)					
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45271	1	0.228	5.79	0.042	1.07
45272	2	0.300	7.62	0.042	1.07
45273	3	0.314	7.98	0.042	1.07
45274	4	0.338	8.59	0.042	1.07
45275	5	0.365	9.27	0.042	1.07
45276	6	0.394	10.01	0.042	1.07
45279	9	0.452	11.48	0.042	1.07
45279/11	11	0.483	12.27	0.042	1.07
45279/15	15	0.540	13.72	0.042	1.07
45279/19	19	0.598	15.19	0.053	1.35

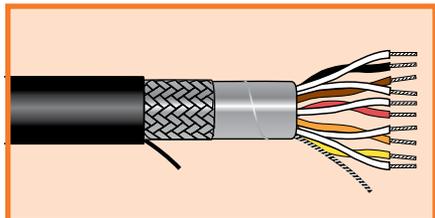
\* UL AWM 20237, CSA AWM I/II A/B FT1 only

22 AWG (0.35 mm <sup>2</sup> )					
Stranding: 7/30 (7 x 0.25 mm) Insulation thickness: 0.016 (0.41 mm)					
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
45121	1	0.246	6.25	0.045	1.14
45122	2	0.325	8.26	0.045	1.14
45123	3	0.341	8.66	0.045	1.14
45124	4	0.368	9.35	0.045	1.14
45125	5	0.418	10.62	0.055	1.40
45126	6	0.449	11.40	0.055	1.40
45129	9	0.513	13.03	0.055	1.40
45129/11	11	0.549	13.94	0.055	1.40
45129/15	15	0.632	16.05	0.065	1.65
45129/19	19	0.677	17.20	0.065	1.65



# Xtra-Guard® 4

Advanced High/Low-Temperature Performance  
300 V Supra-Shield® Foil + Braid, Multipair



**UL AWM 20237**  
**UL PLTC**  
**CSA AWM I/II A/B FT1**  
**MSHA P-07-KA070017-MSHA**  
**NEC Class 1, Div 2 (22 AWG)**

### Operating Temperature

- 50°C to +125°C

### Conductor Color Coding

- Chart B
- Jacket Colors: Nine available (black standard)

### Materials

- Stranded tinned copper conductors
- TPE insulation
- TPE jacket
- Supra-Shield foil + braid shield: Aluminum/polyester/aluminum foil with 25% overlap min.  
Tinned copper drain wire sized the same as conductors  
Tinned copper braid, 70% coverage min.
- Nylon ripcord

### Availability

Made to order  
1000 ft (305 m) minimum

### FIT® Tubing Recommendations

- FIT-600: highly flexible, cross-linked elastomer
- FIT-400: temperature/chemical resistant FEP

## 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
<b>45291</b>	1	0.262	6.65	0.045	1.14
<b>45292</b>	2	0.352	8.94	0.045	1.14
<b>45293</b>	3	0.370	9.40	0.045	1.14
<b>45294</b>	4	0.420	10.67	0.055	1.40
<b>45295</b>	5	0.454	11.53	0.055	1.40
<b>45296</b>	6	0.489	12.42	0.055	1.40
<b>45299</b>	9	0.561	14.25	0.055	1.40
<b>45299/11</b>	11	0.621	15.77	0.065	1.65
<b>45299/15</b>	15	0.698	17.73	0.065	1.65

## 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket thickness	
		Inch	mm	Inch	mm
<b>45131</b>	1	0.280	7.11	0.045	1.14
<b>45132</b>	2	0.381	9.68	0.045	1.14
<b>45133</b>	3	0.422	10.72	0.055	1.40
<b>45134</b>	4	0.456	11.58	0.055	1.40
<b>45135</b>	5	0.494	12.55	0.055	1.40
<b>45136</b>	6	0.534	13.56	0.055	1.40
<b>45139</b>	9	0.635	16.13	0.065	1.65
<b>45139/11</b>	11	0.686	17.42	0.065	1.65
<b>45139/15</b>	15	0.766	19.46	0.065	1.65



# Conductor Color Coding

## Multipair Cables

**Chart A**

Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination
1	Black +Red	14	Green + Blue	27	Brown + Yellow
2	Black + White	15	Green + White	28	Violet + Red
3	Black + Green	16	Green + Brown	29	Violet + White
4	Black + Blue	17	Green + Orange	30	Violet + Green
5	Black + Brown	18	Green + Yellow	31	Violet + Blue
6	Black + Yellow	19	White + Blue	32	Violet + Brown
7	Black + Orange	20	White + Brown	33	Violet + Yellow
8	Red + Green	21	White + Orange	34	Violet + Orange
9	Red + White	22	White + Yellow	35	Violet + Slate
10	Red + Blue	23	Blue + Brown	36	Violet + Black
11	Red + Yellow	24	Blue + Orange	37	Slate + Red
12	Red + Brown	25	Blue + Yellow	38	Slate + White
13	Red + Orange	26	Brown + Orange	39	Slate + Green

**Chart B**

Pair No.	Color Combination	Pair No.	Color Combination	Pair No.	Color Combination
1	White +Black	35	Orange +Slate	69	White/Red +Green
2	White +Brown	36	Yellow +Green	70	White/Red +Blue
3	White +Red	37	Yellow +Blue	71	White/Red +Violet
4	White +Orange	38	Yellow +Violet	72	White/Red +Slate
5	White +Yellow	39	Yellow +Slate	73	White/Orange +Black
6	White +Green	40	Green +Blue	74	White/Orange +Brown
7	White +Blue	41	Green +Violet	75	White/Orange +Red
8	White +Violet	42	Green +Slate	76	White/Orange +Orange
9	White +Slate	43	Blue +Violet	77	White/Orange +Yellow
10	Black +Brown	44	Blue +Slate	78	White/Orange +Green
11	Black +Red	45	Violet +Slate	79	White/Orange +Blue
12	Black +Orange	46	White/Black +Black	80	White/Orange +Violet
13	Black +Yellow	47	White/Black +Brown	81	White/Orange +Slate
14	Black +Green	48	White/Black +Red	82	White/Yellow +Black
15	Black +Blue	49	White/Black +Orange	83	White/Yellow +Brown
16	Black +Violet	50	White/Black +Yellow	84	White/Yellow +Red
17	Black +Slate	51	White/Black +Green	85	White/Yellow +Orange
18	Brown +Red	52	White/Black +Blue	86	White/Yellow +Yellow
19	Brown +Orange	53	White/Black +Violet	87	White/Yellow +Green
20	Brown +Yellow	54	White/Black +Slate	88	White/Yellow +Blue
21	Brown +Green	55	White/Brown +Black	89	White/Yellow +Violet
22	Brown +Blue	56	White/Brown +Brown	90	White/Yellow +Slate
23	Brown +Violet	57	White/Brown +Red	91	White/Green +Black
24	Brown +Slate	58	White/Brown +Orange	92	White/Green +Brown
25	Red +Orange	59	White/Brown +Yellow	93	White/Green +Red
26	Red +Yellow	60	White/Brown +Green	94	White/Green +Orange
27	Red +Green	61	White/Brown +Blue	95	White/Green +Yellow
28	Red +Blue	62	White/Brown +Violet	96	White/Green +Green
29	Red +Violet	63	White/Brown +Slate	97	White/Green +Blue
30	Red +Slate	64	White/Red +Black	98	White/Green +Violet
31	Orange +Yellow	65	White/Red +Brown	99	White/Green +Slate
32	Orange +Green	66	White/Red +Red	100	White/Blue +Black
33	Orange +Blue	67	White/Red +Orange	101	White/Blue +Brown
34	Orange +Violet	68	White/Red +Yellow	102	White/Blue +Red