

Coilbond™ Self-Bonding Insulated Winding Wires

Coilbond™ Self-Bonding Winding Wires, Insulated with Modified ETFE

(No stock item)

ETFE is a Fluoropolymer compound with excellent electrical properties, heat resistance, chemical resistance, and abrasion resistance

Commonly used in winding wires, UL AWM wires, and medical applications

Self-Bonding Overcoat Information:

The Self-Bonding Overcoat is a proprietary material intended for bonding the product together and it should not be considered an additional layer of insulation nor should it be used for any additional electrical or mechanical properties



Conductor:	Tin Plated Copper, Solid or Stranded ASTM B-33/ASTM B-286
Temperature Rating:	155°C
Insulation Information:	modified ETFE with Proprietary Self-Bonding Overcoat
Thickness Overcoat:	0.038 mm
Thermal:	Continuous Operating Temperature, 150°C
Bonding Temp. Range:	182°C - 276°C
Tensile Strength:	45 N/mm ² (6500 psi)
UV Resistance:	Excellent
Underground Resistance:	Excellent
UL Flammability Rating:	UL94 V-0
Elongation:	150 - 300 %
Chemical Resistance:	Excellent
Long Term Stability:	Excellent
Dielectric Constant:	2.6
Thickness / layer:	0,025 mm
Abrasion Resistance:	Excellent
Water Resistance:	Excellent

Approvals:	UL OBJT2 File No. E206198 UL/IEC60950-1 (ed.2), Annex U. UL 2601; RoHS compliant		
Number of layers:	1	2	3
Operating voltage:	UL: 600 V	UL: 600 V	UL: 707 V (medical), 1500 V (electronic)
Breakdown voltage:	approx. 2000 V	approx. 4500 V	approx. 7000 V

Tolerances:

	AWG	---	---	18 - 24	+ 0.038 / - 0.025 mm	18 - 24	+ 0.038 / - 0.025 mm
	AWG	22 - 40	+ 0.025 / - 0.0125 mm	25 - 40	+ 0.025 / - 0.025 mm	25 - 40	+ 0.025 / - 0.025 mm

Dimensions:

with 1 layer				with 2 layers			with 3 layers		
AWG	Type	conductor [mm]	outer Ø* [mm]	Type	conductor [mm]	outer Ø* [mm]	Type	conductor [mm]	outer Ø* [mm]
18	---	---	---	TCA2/18AWG-SB-1.5	1.024	1.25	TCA3/18AWG-SB-1.5	1.024	1.33
19	---	---	---	TCA2/19AWG-SB-1.5	0.912	1.14	TCA3/19AWG-SB-1.5	0.912	1.22
20	---	---	---	TCA2/20AWG-SB-1.5	0.813	1.04	TCA3/20AWG-SB-1.5	0.813	1.12
21	---	---	---	TCA2/21AWG-SB-1.5	0.724	0.95	TCA3/21AWG-SB-1.5	0.724	1.03
22	TCA1/22AWG-SB-1.5	0.643	0.80	TCA2/22AWG-SB-1.5	0.643	0.87	TCA3/22AWG-SB-1.5	0.643	0.95
23	TCA1/23AWG-SB-1.5	0.574	0.73	TCA2/23AWG-SB-1.5	0.574	0.80	TCA3/23AWG-SB-1.5	0.574	0.88
24	TCA1/24AWG-SB-1.5	0.511	0.66	TCA2/24AWG-SB-1.5	0.511	0.74	TCA3/24AWG-SB-1.5	0.511	0.82
25	TCA1/25AWG-SB-1.5	0.455	0.61	TCA2/25AWG-SB-1.5	0.455	0.68	TCA3/25AWG-SB-1.5	0.455	0.76
26	TCA1/26AWG-SB-1.5	0.404	0.56	TCA2/26AWG-SB-1.5	0.404	0.63	TCA3/26AWG-SB-1.5	0.404	0.71
27	TCA1/27AWG-SB-1.5	0.361	0.51	TCA2/27AWG-SB-1.5	0.361	0.59	TCA3/27AWG-SB-1.5	0.361	0.67
28	TCA1/28AWG-SB-1.5	0.327	0.47	TCA2/28AWG-SB-1.5	0.327	0.55	TCA3/28AWG-SB-1.5	0.327	0.62
29	TCA1/29AWG-SB-1.5	0.287	0.44	TCA2/29AWG-SB-1.5	0.287	0.52	TCA3/29AWG-SB-1.5	0.287	0.59
30	TCA1/30AWG-SB-1.5	0.254	0.40	TCA2/30AWG-SB-1.5	0.254	0.48	TCA3/30AWG-SB-1.5	0.254	0.56
31	TCA1/31AWG-SB-1.5	0.226	0.38	TCA2/31AWG-SB-1.5	0.229	0.45	TCA3/31AWG-SB-1.5	0.226	0.53
32	TCA1/32AWG-SB-1.5	0.203	0.36	TCA2/32AWG-SB-1.5	0.203	0.43	TCA3/32AWG-SB-1.5	0.203	0.51
33	TCA1/33AWG-SB-1.5	0.178	0.33	TCA2/33AWG-SB-1.5	0.180	0.38	TCA3/33AWG-SB-1.5	0.178	0.49
34	TCA1/34AWG-SB-1.5	0.160	0.31	TCA2/34AWG-SB-1.5	0.160	0.36	TCA3/34AWG-SB-1.5	0.160	0.46
35	TCA1/35AWG-SB-1.5	0.142	0.29	TCA2/35AWG-SB-1.5	0.142	0.35	TCA3/35AWG-SB-1.5	0.142	0.45
36	TCA1/36AWG-SB-1.5	0.127	0.28	TCA2/36AWG-SB-1.5	0.127	0.33	TCA3/36AWG-SB-1.5	0.127	0.43
37	TCA1/37AWG-SB-1.5	0.114	0.27	TCA2/37AWG-SB-1.5	0.114	0.32	TCA3/37AWG-SB-1.5	0.114	0.42
38	TCA1/38AWG-SB-1.5	0.102	0.25	TCA2/38AWG-SB-1.5	0.102	0.30	TCA3/38AWG-SB-1.5	0.102	0.41
39	TCA1/39AWG-SB-1.5	0.089	0.24	TCA2/39AWG-SB-1.5	0.089	0.29	TCA3/39AWG-SB-1.5	0.089	0.39
40	TCA1/40AWG-SB-1.5	0.079	0.23	TCA2/40AWG-SB-1.5	0.079	0.28	TCA3/40AWG-SB-1.5	0.079	0.38

* including overcoat

Item number:

Example: FLTCA2/18AWG-SB-1.5
 FL = prefix
 TCA = type
 2 = number of layers 1 = single, 2 = double, 3 = triple
 /18 = AWG
 -SB = self-bonding
 -1.5 = thickness overcoat -1.5 = 0.038 mm,



Coilbond™ Self-Bonding Winding Wires, Insulated with Tefzel® ETFE, Layers 0.025 mm (No stock item)

ETFE is a Fluoropolymer compound with excellent electrical properties, heat resistance, chemical resistance, and abrasion resistance. Commonly used in winding wires, UL AWM wires, and medical applications.

Self-Bonding Overcoat Information:

The Self-Bonding Overcoat is a proprietary material intended for bonding the product together and it should not be considered an additional layer of insulation nor should it be used for any additional electrical or mechanical properties



Conductor:	Tin Plated Copper , Solid or Stranded ASTM B-33/ASTM B-286 Bare Copper and other conductors available
Temperature Rating:	155° C
Insulation Information:	Du Pont ETFE Tefzel® with Proprietary Self-Bonding Overcoat
Thermal:	Continuous Operating Temperature, 150°C
Bonding Temp. Range:	182°C - 276°C
Tensile Strength:	45 N/mm² (6500 psi)
UV Resistance:	Excellent
Underground Resistance:	Excellent
UL Flammability Rating:	UL94 V-0
Elongation:	150 - 300 %
Chemical Resistance:	Excellent
Long Term Stability:	Excellent
Dielectric Constant:	2.6
Thickness / layer:	0.025 mm (0.001")
Abrasion Resistance:	Excellent
Water Resistance:	Excellent
Bondability:	IEC 68-2-20
Approvals:	UL OBJT2 File No. E206198 UL/IEC60950-1 (ed.2), Annex U; RoHS compliant

Number of layers:	2	3
Operating voltage:	600 V	UL: 1500 V for electronic equipment UL: 707 V for medical equipment
Breakdown Voltage:	approx. 3000 V	approx. 7000 V

Tolerances:						
	AWG	---	---	AWG	18-24	+ 0.038 / - 0.025 mm
	AWG	30-40	+ 0.025 / - 0.0125 mm	AWG	25-40	+ 0.025 / - 0.025 mm

Dimensions:

AWG	Type	Conductor Ø [mm]	Outer Ø* [mm]	Type	Conductor Ø* [mm]	Outer Ø* [mm]
18	---	---	---	FLT18A01TXXX-1-SB-1.5	1.024	1.04
19	---	---	---	FLT19A01TXXX-1-SB-1.5	0.912	0.95
20	---	---	---	FLT20A01TXXX-1-SB-1.5	0.813	1.04
21	---	---	---	FLT21A01TXXX-1-SB-1.5	0.724	0.95
22	---	---	---	FLT22A01TXXX-1-SB-1.5	0.643	0.87
23	---	---	---	FLT23A01TXXX-1-SB-1.5	0.574	0.80
24	---	---	---	FLT24A01TXXX-1-SB-1.5	0.511	0.74
25	---	---	---	FLT25A01TXXX-1-SB-1.5	0.455	0.68
26	---	---	---	FLT26A01TXXX-1-SB-1.5	0.404	0.63
27	---	---	---	FLT27A01TXXX-1-SB-1.5	0.361	0.59
28	---	---	---	FLT28A01TXXX-1-SB-1.5	0.320	0.55
29	---	---	---	FLT29A01TXXX-1-SB-1.5	0.287	0.52
30	D30A01TXX-1-SB-1.5	0.254	0.43	FLT30A01TXXX-1-SB-1.5	0.254	0.48
31	D31A01TXX-1-SB-1.5	0.226	0.40	FLT31A01TXXX-1-SB-1.5	0.226	0.46
32	D32A01TXX-1-SB-1.5	0.203	0.38	FLT32A01TXXX-1-SB-1.5	0.203	0.43
33	D33A01TXX-1-SB-1.5	0.180	0.36	FLT33A01TXXX-1-SB-1.5	0.180	0.41
34	D34A01TXX-1-SB-1.5	0.160	0.34	FLT34A01TXXX-1-SB-1.5	0.160	0.39
35	D35A01TXX-1-SB-1.5	0.142	0.32	FLT35A01TXXX-1-SB-1.5	0.142	0.37
36	D36A01TXX-1-SB-1.5	0.127	0.30	FLT36A01TXXX-1-SB-1.5	0.127	0.36
37	D37A01TXX-1-SB-1.5	0.114	0.29	FLT37A01TXXX-1-SB-1.5	0.114	0.34
38	D38A01TXX-1-SB-1.5	0.102	0.28	FLT38A01TXXX-1-SB-1.5	0.102	0.33
39	D39A01TXX-1-SB-1.5	0.089	0.27	FLT39A01TXXX-1-SB-1.5	0.089	0.32
40	D40A01TXX-1-SB-1.5	0.079	0.26	FLT40A01TXXX-1-SB-1.5	0.079	0.31

* including overcoat

Item number:

Example: FLT18A01TXXX-1-SB-1.5
 FL = Prefix
 T = number of layers D = double, T = triple
 18 = AWG
 A = conductor material Cu tin-plated
 01 = conductor 01 = solid wire
 T = isolation ETFE Tefzel®
 XXX X = colour of outer, middle, inner layer
 0 = black, 1 = brown, 2 = red, 3 = orange, 4 = yellow 5 = green,
 6 = blue, 7 = violet, 8 = grey, 9 = white
 -1 = thickness of layer -1 = 0.025 mm
 -SB = self-bonding
 1.5 = thickness of overcoat -1.5 = 0.038 mm



Coilbond™ Self-Bonding Winding Wires, Insulated with Tefzel® ETFE, Layers 0.038 mm

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Thickness Overcoat:	0.038 mm
Bonding Temp. Range:	182°C - 276°C
Tensile Strength:	45 N/mm ² (6500 psi)
UV Resistance:	Excellent
Underground Resistance:	Excellent
UL Flammability Rating:	UL 94 V-0
Elongation:	150-300 %
Chemical Resistance:	Excellent
Long Term Stability:	Excellent
Dielectric Constant:	2.6
Thickness / layer:	0.038 mm (0.0015")
Abrasion Resistance:	Excellent
Bondability:	EC 68-2-20
Approvals:	UL OBJT2 File No. E206198 UL/IEC60950-1 (ed.2), Annex U.; RoHS compliant



Number of layers:	1	2	3
Operating voltage:	600 V	600 V	1000 V
Breakdown Voltage:	approx. 2000 V	approx. 4500 V	approx. 4500 V

Tolerances:

AWG	22 - 24	+ 0.038/ - 0.0125mm	18 - 24	+ 0.038/ - 0.025 mm	18 - 24	+ 0.038/ - 0.025 mm
AWG	25 - 40	+ 0.025/ - 0.0125mm	25 - 40	+ 0.025 / - 0.025 mm	25 - 40	+ 0.025/ - 0.025mm

Dimensions:

with 1 layer				with 2 layers				with 3 layers			
AWG	Type	Conductor [mm]	OuterØ* [mm]	Type	Conductor [mm]	OuterØ* [mm]	Type	Conduct. [mm]	OuterØ* [mm]		
18	---	---	---	D18A01TXX-1.5-SB-1.5	1.024	1.25	T18A01TXXX-1.5-SB-1.5	1.024	1.33		
19	---	---	---	D19A01TXX-1.5-SB-1.5	0.912	1.14	T19A01TXXX-1.5-SB-1.5	0.912	1.22		
20	---	---	---	D20A01TXX-1.5-SB-1.5	0.813	1.04	T20A01TXXX-1.5-SB-1.5	0.813	1.12		
21	---	---	---	D21A01TXX-1.5-SB-1.5	0.724	0.95	T21A01TXXX-1.5-SB-1.5	0.724	1.03		
22	S22A01TX-1.5-SB-1.5	0.643	0.80	D22A01TXX-1.5-SB-1.5	0.643	0.87	T22A01TXXX-1.5-SB-1.5	0.643	0.95		
23	S23A01TX-1.5-SB-1.5	0.574	0.73	D23A01TXX-1.5-SB-1.5	0.574	0.80	T23A01TXXX-1.5-SB-1.5	0.574	0.88		
24	S24A01TX-1.5-SB-1.5	0.511	0.66	D24A01TXX-1.5-SB-1.5	0.511	0.74	T24A01TXXX-1.5-SB-1.5	0.511	0.82		
25	S25A01TX-1.5-SB-1.5	0.455	0.61	D25A01TXX-1.5-SB-1.5	0.455	0.68	T25A01TXXX-1.5-SB-1.5	0.455	0.76		
26	S26A01TX-1.5-SB-1.5	0.404	0.56	D26A01TXX-1.5-SB-1.5	0.404	0.63	T26A01TXXX-1.5-SB-1.5	0.404	0.71		
27	S27A01TX-1.5-SB-1.5	0.361	0.51	D27A01TXX-1.5-SB-1.5	0.361	0.59	T27A01TXXX-1.5-SB-1.5	0.361	0.67		
28	S28A01TX-1.5-SB-1.5	0.320	0.47	D28A01TXX-1.5-SB-1.5	0.320	0.55	T28A01TXXX-1.5-SB-1.5	0.320	0.62		
29	S29A01TX-1.5-SB-1.5	0.287	0.44	D29A01TXX-1.5-SB-1.5	0.287	0.52	T29A01TXXX-1.5-SB-1.5	0.287	0.59		
30	S30A01TX-1.5-SB-1.5	0.254	0.40	D30A01TXX-1.5-SB-1.5	0.254	0.48	T30A01TXXX-1.5-SB-1.5	0.254	0.56		
31	S31A01TX-1.5-SB-1.5	0.226	0.38	D31A01TXX-1.5-SB-1.5	0.226	0.45	T31A01TXXX-1.5-SB-1.5	0.226	0.53		
32	S32A01TX-1.5-SB-1.5	0.203	0.36	D32A01TXX-1.5-SB-1.5	0.203	0.43	T32A01TXXX-1.5-SB-1.5	0.203	0.51		
33	S33A01TX-1.5-SB-1.5	0.180	0.33	D33A01TXX-1.5-SB-1.5	0.180	0.41	T33A01TXXX-1.5-SB-1.5	0.180	0.49		
34	S34A01TX-1.5-SB-1.5	0.160	0.31	D34A01TXX-1.5-SB-1.5	0.160	0.39	T34A01TXXX-1.5-SB-1.5	0.160	0.46		
35	S35A01TX-1.5-SB-1.5	0.142	0.29	D35A01TXX-1.5-SB-1.5	0.142	0.37	T35A01TXXX-1.5-SB-1.5	0.142	0.45		
36	S36A01TX-1.5-SB-1.5	0.127	0.28	D36A01TXX-1.5-SB-1.5	0.127	0.36	T36A01TXXX-1.5-SB-1.5	0.127	0.43		
37	S37A01TX-1.5-SB-1.5	0.114	0.27	D37A01TXX-1.5-SB-1.5	0.114	0.34	T37A01TXXX-1.5-SB-1.5	0.114	0.42		
38	S38A01TX-1.5-SB-1.5	0.102	0.25	D38A01TXX-1.5-SB-1.5	0.102	0.33	T38A01TXXX-1.5-SB-1.5	0.102	0.41		
39	S39A01TX-1.5-SB-1.5	0.089	0.24	D39A01TXX-1.5-SB-1.5	0.089	0.32	T39A01TXXX-1.5-SB-1.5	0.089	0.39		
40	S40A01TX-1.5-SB-1.5	0.079	0.23	D40A01TXX-1.5-SB-1.5	0.079	0.31	T40A01TXXX-1.5-SB-1.5	0.079	0.38		

* including overcoat

Item number:

Example: FLT18A01TXXX-1.5-SB-1.5

FL = prefix

T = number of layers S = single, D = double, T = triple

18 = AWG

A = conductor material Cu tin-plated

01 = conductor 01 = solid wire, 19 or 37 = with 19 or 37 wires

T = insulation ETFE Tefzel®

XXX X = colour of outer, middle, inner layer

0 = black, 1 = brown, 2 = red, 3 = orange, 4 = yellow,

5 = green, 6 = blue, 7 = violet, 8 = grey, 9 = white

-1.5 = thickness of layer -1.5 = 0.038 mm

-SB = self-bonding

-1.5 = thickness of overcoat -1.5 = 0.038 mm

