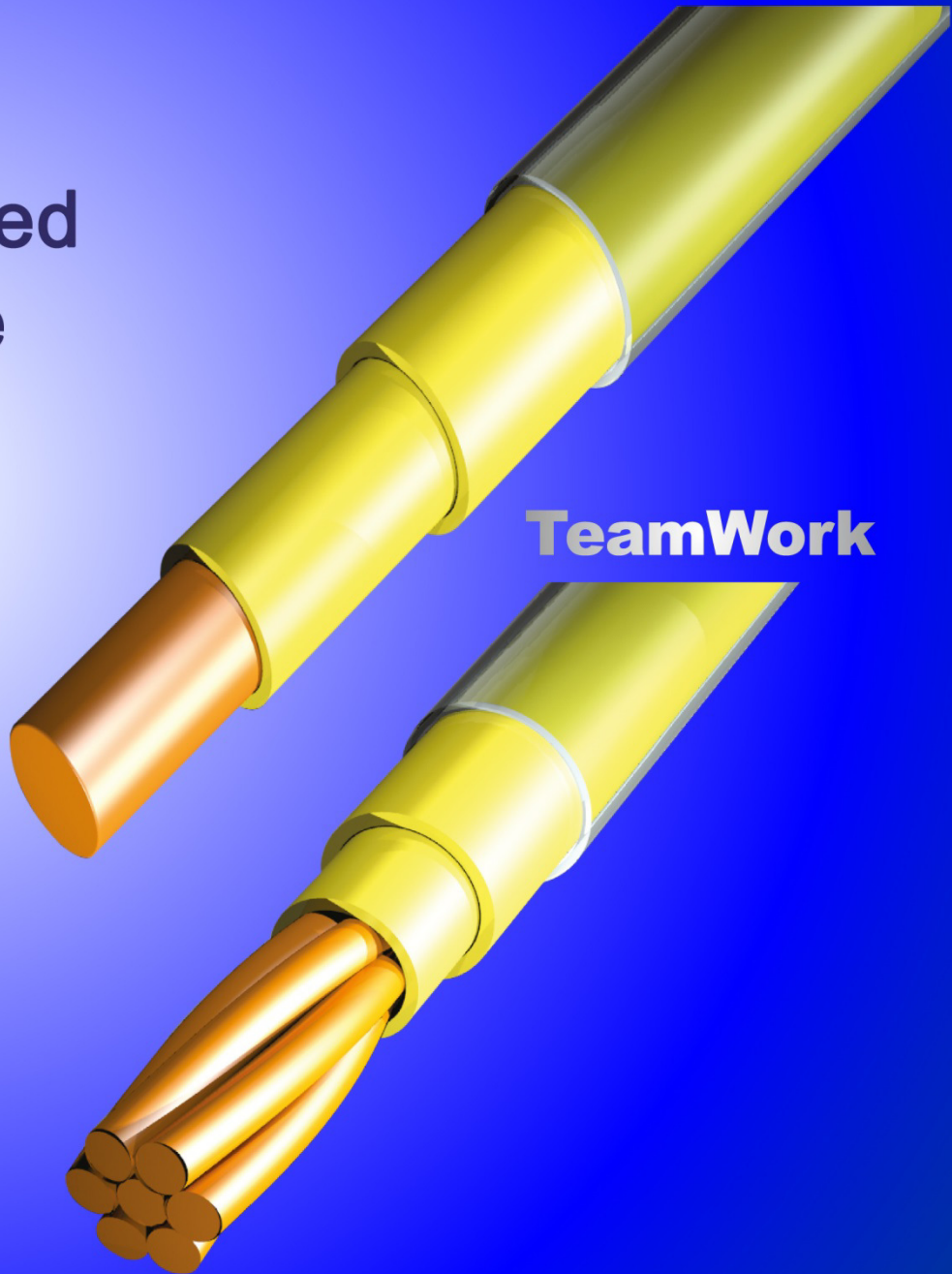


# Innovation . Power . TeamWork

Triple insulated  
Winding Wire

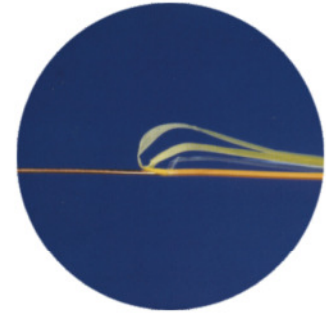


**TeamWork**

## Triple Insulated Winding Wire

### FEATURES

1. Classed as thermal resistance "A~F" (105°C~155°C) type.
2. Outstanding withstand voltage; approved as having Reinforced insulation by test houses. 6000V<sub>rms</sub> · 1min
3. Solderable in a way not allowing for the stripping of the cover.
4. Can be fast coiled by using an automatic coiling machine.
5. Sizes available in a wide range of 0.20mm~1.00mm.
6. Safety: UL, VDE.

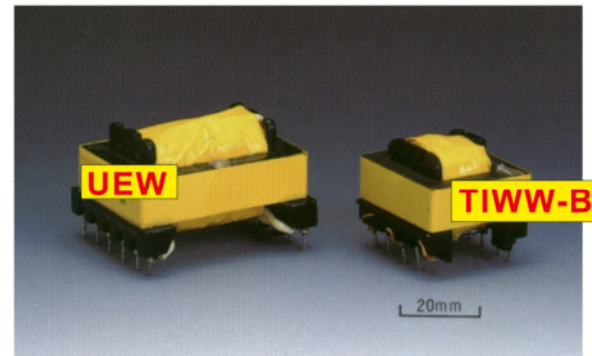


### APPLICATIONS TO TRANSFORMERS

#### A Comparison With Conventional Transformers:

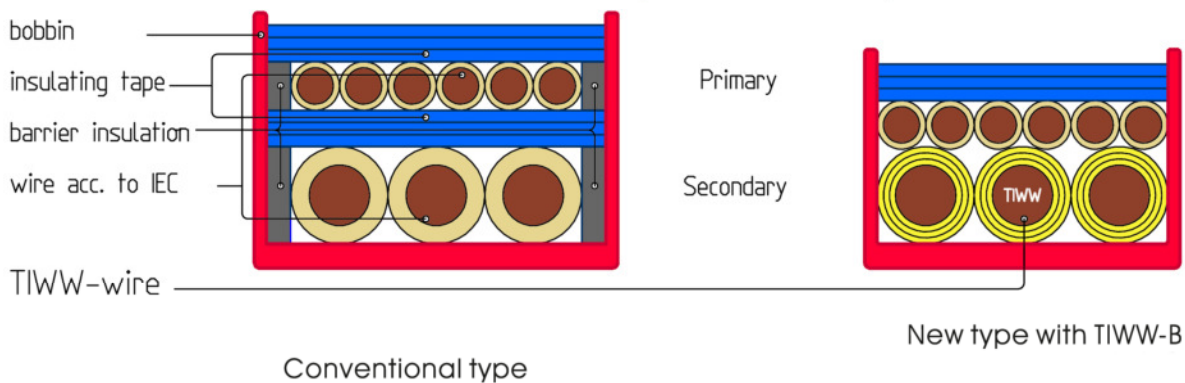
The conventional type transformer is on the left and the transformer using TIWW-B is on the right. The photograph illustrates a case in which TIWW-B is used for a 20-watt class transformer.

With interlayer insulation tapes and barriers dispensed with, the transformer could be reduced by approximately half the volume and two-thirds of the weight. This could lead to both material and fabrication cost cuts.



		Conventional	Applied TIWW-B
Output		20W	
Volume	cm <sup>3</sup>	36	19
	Percent	100	53
Weight	Gr.	70	45
	Percent	100	64

### TRANSFORMER CONSTRUCTION (an Example)



### Applications of TIWW-B



**CHARGER**



**ADAPTOR**



**POWER SUPPLY**



**HIGH-FREQUENCY TRANSFORMER**

\*1- Operation at temperature higher than Class A needs to be tested according to UI1446 Insulation system.



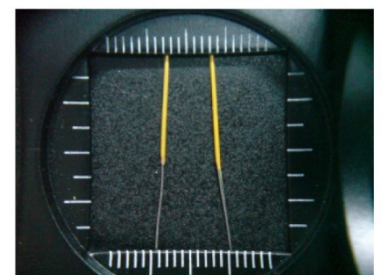
# Insulation Winding Wire

	TIWW-B	TIWW-F	TIWW-B(LZ)	1-UEW
<b>Construction</b>	Modified polyester + Polyamide  Three layers extruded	Modified Polyester + Modified Polyamide  Three layers extruded	Modified polyester + Polyamide  Three layers extruded	UEW Enamel  One layer applied
Main type of Transformer	Power		Power	-
Nominal conductor dia.	0.2-1.0mm		7/0.10-7/0.30mm	-
Insulation IEC 60950	Reinforced		Reinforced	None
Working Voltage	1000VRms		1000V Rms	Not available
Annex U 2.2 Test condition	6000V for 1 min. *2		6000V for 1 min. *2	Not acceptable
Thermal Class	B (130°C)	F (155°C)	B (130°C)	E or B
Solderability	Solderable	Solderable	Solderable	Solderable

Conductor		Insulation		Max. Conductor Resistance	Min. BDV
Diameter	Tolerance	Min. Film Thickness	Target Overall Dia.	20°C, Ω/km	Twisted Sample
0.20	±0.008	0.090	0.40	607.5	7000
0.22	±0.008	0.090	0.42	498.4	
0.25	±0.008	0.090	0.45	382.5	
0.28	±0.008	0.090	0.48	307.3	
0.30	±0.010	0.090	0.50	262.9	
0.32	±0.010	0.090	0.52	230.0	
0.35	±0.010	0.090	0.55	191.2	
0.37	±0.010	0.090	0.57	170.6	
0.40	±0.010	0.090	0.60	145.3	
0.45	±0.010	0.090	0.65	114.2	
0.50	±0.010	0.090	0.70	91.43	
0.55	±0.020	0.090	0.75	78.15	
0.60	±0.020	0.090	0.80	65.26	
0.65	±0.020	0.090	0.85	55.31	
0.70	±0.020	0.090	0.90	47.47	
0.75	±0.020	0.090	0.95	41.19	
0.80	±0.020	0.090	1.00	36.08	
0.85	±0.020	0.090	1.05	31.87	
0.90	±0.020	0.090	1.10	28.35	
0.95	±0.020	0.090	1.15	25.38	
1.00	±0.030	0.090	1.20	23.33	



Good electrical property and quality



Excellent performance of soldering

## Complied for:

- \*RoHS
- \*SONY GP
- \*REACH
- \*Halogen Free



Contact to us for more info..

\*2- Electrical Strength Test - Twisted Sample.

## Insulation Winding Wire

	DIWW-B	DIWW-F	SIWW-B	SIWW-F
<b>Construction</b>	UEW + M-polyester + Polyamide  Two layers extruded	UEW + M-polyester + M-Polyamide  Two layers extruded	UEW + M-polyester  One layers extruded	UEW + M-polyester  One layers extruded
Main type of Transformer	Telecommunication	Telecommunication	Telecommunication	Telecommunication
Nominal conductor dia.	0.12-0.19mm	0.12-0.19mm	0.12-0.19mm	0.12-0.19mm
Insulation IEC 60950	Supplementary	Supplementary	Basic	Basic
Working Voltage	600V Rms	600V Rms	354V <sub>Dc or peak</sub>	354V <sub>Dc or peak</sub>
Annex U 2.2 Test condition	1500V for 1 min.	1500V for 1 min.	1500V for 1 min.	1500V for 1 min.
Thermal Class	F (155°C)	F (155°C)	B (130°C)	B (130°C)
Solderability	Solderable	Solderable	Solderable	Solderable



**HUB**



**ADSL MODEM**



SIWW Conductor		Insulation		Max. Conductor Resistance	Min. BDV
Diameter	Tolerance	Min. Film Thickness	Target Overall Dia.	20°C, Ω/km	Twisted Sample
0.12	±0.005	0.025	0.190	1724	3000V
0.13	±0.005	0.025	0.200	1475	
0.14	±0.005	0.025	0.210	1248	
0.15	±0.005	0.025	0.220	1081	
0.16	±0.005	0.025	0.232	944.5	
0.17	±0.005	0.025	0.242	832.9	
0.18	±0.005	0.025	0.252	739.9	
0.19	±0.005	0.025	0.262	661.6	

DIWW Conductor		Insulation		Max. Conductor Resistance	Min. BDV
Diameter	Tolerance	Min. Film Thickness	Target Overall Dia.	20°C, Ω/km	Twisted Sample
0.12	±0.006	0.050	0.250	1724	3000V
0.13	±0.006	0.050	0.260	1475	
0.14	±0.006	0.050	0.270	1248	
0.15	±0.006	0.050	0.280	1081	
0.16	±0.006	0.050	0.292	944.5	
0.17	±0.006	0.050	0.302	832.9	
0.18	±0.006	0.050	0.312	739.9	
0.19	±0.006	0.050	0.322	661.6	

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