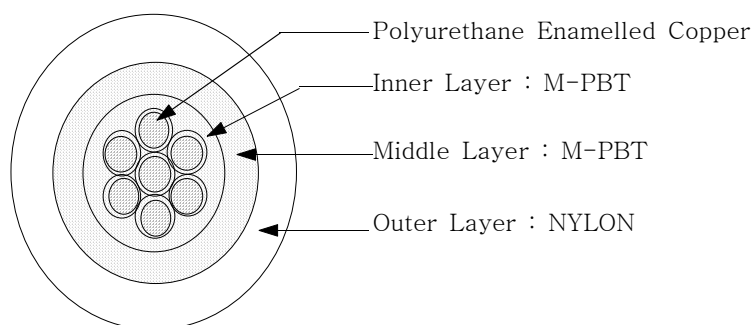


	SPECIFICATION FOR Triple Insulated Winding Wire TIW-M(LIZ)(XX)	ISSUED : 2022.5.30 PAGE : 2 OF 5 REV : 5
--	---	---

1. SCOPE

This specification applies to Triple Insulated Litz Wire(TIW-M(LIZ)(XX) ; hereinafter referred to as the "wires") which is used for windings and wirings of electrical machines and apparatus.

2. FIGURE



3. Strands

The strands shall be the polyurethane enamelled copper winding wires. The strands shall be stranded uniformly at suitable pitch.

4. CONSTRUCTION

4.1 Conductor

- 1) Size : 7/0.10mm(30AWG) ~ 105/0.10mm(18AWG)
- 2) The conductor shall be annealed copper wire.

4.2 Insulation

- 1) The Inner and middle insulation is modified PBT, outer insulation is Nylon.
- 2) The nominal thickness of the insulation shall be as shown in Appendix 1.

4.3 Color

- 1) The color of the wires is yellow. Other colors are available on request.

5. DIMENSIONS

The dimensions of finished cable shall be as shown in Appendix 1.

	SPECIFICATION FOR Triple Insulated Winding Wire TIW-M(LIZ)(XX)	ISSUED : 2022.5.30 PAGE : 3 OF 5 REV : 5
--	---	---

6. Characteristics

The characteristics shall be as given in Table 1.

Table 1

Item		Characteristics	Test methods		Inspection Classification		
			Test conditions	Applicable subclause of KS C 3006	Type Inspection	Delivery Inspection	
1	Dimensions	Shall meet the values specified in attached Appendix 1.			5.(1)	○	○
2	Withstand Voltage	Not less than 60 second at A.C 3000V with 2 layers.	The specimen shall twisted test		11.(2)	○	—
3	Dielectric Breakdown Voltage	Shall meet the values specified in attached Appendix 1.			11.(2)	○	○
4	Pinhole	No pinhole			6.	○	○
5	Solderbility	Solder shall adhere to the conductor uniformly.	Conductor Dia (mm)	Dipping time (sec)	16.	○	—
			< 7/0.20	8			
			≥ 7/0.20	10			
			Soldering Temp. : 420 ± 5℃				
6	Conductor Resistance	Shall meet the values specified in attached Appendix 1.			19.	○	○



Prodin Ferrite S.L.

Calle A, 27, 08620 Sant Vicenç dels Horts, Barcelona
(Spain) Tel.: +34 93 672 46 10
info@prodinferrite.com www.prodinferrite.com

	SPECIFICATION FOR Triple Insulated Winding Wire TIW-M(LIZ)(XX)	ISSUED : 2022.5.30 PAGE : 4 OF 5 REV : 5
--	--	--

7. Test Methods

The test methods shall be as given in Table 1, KS C 3006(Methods of Test for Enamelled Copper and Enamelled Aluminum Wires)

8. Packaging

The wire shall be wound on suitable bobbin without loosening and tangle, and adequately packaged to avoid scratch or tangle during transportation.

9. Markings

Each package of winding wire shall be identified by a tag attached to the end of the wire on the spool label or on the smallest unit container. Marking shall consist of the Manufacturer's name or trademark and catalog number.

10. Storage

- 1) Temperature : -25 ~ 45°C
- 2) Relative Humidity : 5 ~ 75%
- 3) Term : 1 year



Prodin Ferrite S.L.

Calle A, 27, 08620 Sant Vicenç dels Horts, Barcelona
(Spain) Tel.: +34 93 672 46 10
info@prodinferrite.com www.prodinferrite.com

APPENDIX 1

SIZE (mm)	Conductor			Number of Strands	Dimension of the wires		Max. Conductor resistance (Ω /km at 20℃)
	Dia. (mm)	Tolerance (mm)	Min. Film Thickness (mm)		Min. Film Thickness (mm)	Target Overall Diameter (mm)	
7/0.10	0.10	$\pm$ 0.008	0.003	7	0.084	0.504~0.524~0.544	346.9
7/0.11	0.11	$\pm$ 0.008	0.003			0.534~0.554~0.574	285.2
7/0.12	0.12	$\pm$ 0.008	0.004			0.570~0.590~0.610	238.4
7/0.13	0.13	$\pm$ 0.008	0.004			0.600~0.620~0.640	202.4
7/0.14	0.14	$\pm$ 0.008	0.004			0.630~0.650~0.670	173.8
7/0.15	0.15	$\pm$ 0.008	0.004			0.660~0.680~0.700	151.1
7/0.16	0.16	$\pm$ 0.008	0.005			0.696~0.716~0.736	132.4
7/0.17	0.17	$\pm$ 0.008	0.005			0.726~0.746~0.766	117.0
7/0.18	0.18	$\pm$ 0.008	0.005			0.756~0.776~0.796	104.2
7/0.19	0.19	$\pm$ 0.008	0.005			0.786~0.806~0.826	93.34
7/0.20	0.20	$\pm$ 0.008	0.005			0.816~0.836~0.856	84.10
7/0.21	0.21	$\pm$ 0.008	0.005			0.846~0.866~0.886	76.18
7/0.22	0.22	$\pm$ 0.008	0.005			0.876~0.896~0.916	69.96
7/0.23	0.23	$\pm$ 0.008	0.006			0.912~0.932~0.952	63.91
7/0.24	0.24	$\pm$ 0.008	0.006			0.942~0.962~0.982	58.61
7/0.25	0.25	$\pm$ 0.008	0.006			0.972~0.992~1.012	53.94
7/0.26	0.26	$\pm$ 0.010	0.006			1.002~1.022~1.042	49.81
7/0.27	0.27	$\pm$ 0.010	0.006			1.032~1.052~1.072	46.13
7/0.28	0.28	$\pm$ 0.010	0.006			1.062~1.082~1.102	42.85
7/0.29	0.29	$\pm$ 0.010	0.006			1.092~1.112~1.132	39.91
7/0.30	0.30	$\pm$ 0.010	0.007			1.128~1.148~1.168	37.01
40/0.10	0.10	$\pm$ 0.008	0.003	40	0.084	0.790~0.940~1.090	67.50
50/0.10	0.10	$\pm$ 0.008	0.003	50		0.930~1.080~1.230	54.00
60/0.10	0.10	$\pm$ 0.008	0.003	60		1.020~1.170~1.320	45.00
65/0.10	0.10	$\pm$ 0.008	0.003	65		1.050~1.200~1.350	41.54
70/0.10	0.10	$\pm$ 0.008	0.003	70		1.080~1.230~1.380	38.57
80/0.10	0.10	$\pm$ 0.008	0.003	80		1.130~1.280~1.430	33.75
84/0.10	0.10	$\pm$ 0.008	0.003	84		1.150~1.300~1.450	32.14
90/0.10	0.10	$\pm$ 0.008	0.003	90		1.180~1.330~1.480	30.00
95/0.10	0.10	$\pm$ 0.008	0.003	95		1.210~1.360~1.510	28.42
100/0.10	0.10	$\pm$ 0.008	0.003	100		1.240~1.390~1.540	27.00
105/0.10	0.10	$\pm$ 0.008	0.003	105		1.260~1.410~1.560	25.71