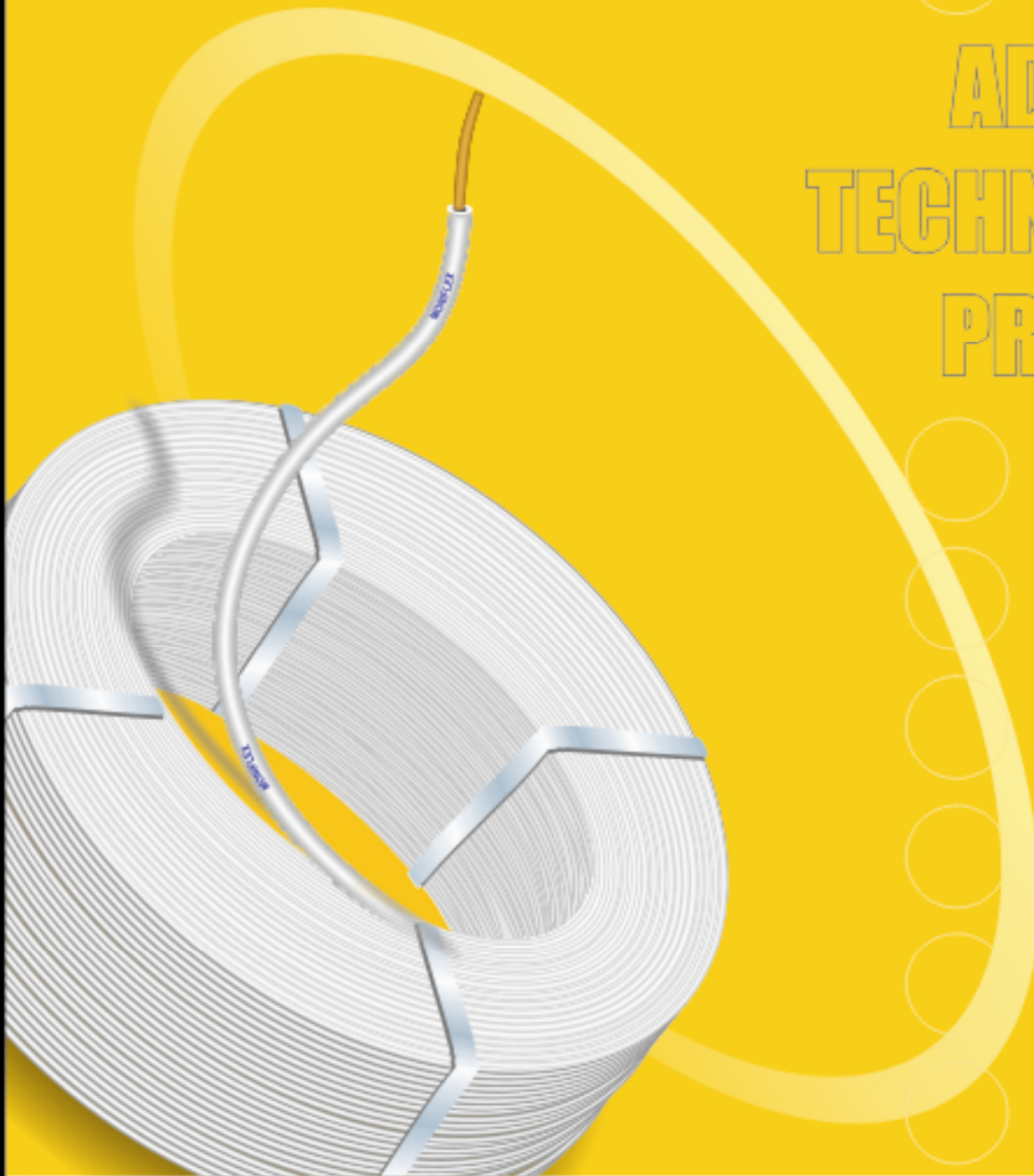




"Together we Progress"



# ADVANCE TECHNOLOGY PRODUCT



An ISO 9001:2000 Certified Co.

**monica**<sup>®</sup>  
WINDING WIRES



IS:8783



**moniflex**<sup>®</sup>

PURE ELECTROLITE COPPER TRIPLE  
COATED WIRE FOR SUBMERSIBLE MOTORS

Moniflex submersible winding wires **(An ISO/IS Product)** is one of the most trusted quality product available in submersible winding wire industry. It has the entire electrical, mechanical, thermal and chemical properties as per IS:Specification. Moniflex helps in saving power consumption as compare to other wires available in market, because of its copper purity and use of superior quality of poly & polypropylene films.

**Conductor :** Moniflex submersible winding wire is manufactured from 99.90% pure electrolytic grade of copper. It is drawn and annealed in fully automatic online plant in our own factory premises. For extra softness the conductor is annealed to our high standards. We conduct following three test on conductor :

1. Spring back test
2. Elongation test
3. Conductor resistance test (20° Celcius)

The Results of these test are even better than IS:Specification 8783 Part (1)

**TABLE - 1**

Cross-Sectional Area (Nominal)	Diameter of Conductor (Nominal)	Elongation (Min) Percent	Conductor Resistance at 20°C (Max.) ohm/km
0.126	0.40	24	140.0
0.159	0.45	25	112.0
0.196	0.50	25	89.6
0.238	0.55	26	74.7
0.283	0.60	26	62.2
0.332	0.65	28	53.5
0.385	0.70	28	45.7
0.442	0.75	28	40.2
0.502	0.80	28	35.0
0.568	0.85	29	31.3
0.636	0.90	30	27.6
0.709	0.95	30	25.1
0.785	1.0	30	22.4
0.950	1.1	31	18.5
1.130	1.2	32	15.5
1.330	1.3	32	13.2
1.540	1.4	32	11.4
1.770	1.5	32	9.95
2.010	1.6	32	8.75
2.270	1.7	32	7.75
2.540	1.8	32	6.91
2.840	1.9	32	6.20
3.140	2.0	33	5.60



**AN ISO 9001:2000 CERTIFIED CO.**

**Insulation :** The main cause of pump failure is use of inferior grade of poly & propylene films / tapes. Moniflex is insulated with poly & propylene tapes of superior quality, which has higher insulation resistance even at boiling point of water. We also conduct test on poly films manufactured by ISO Certified companies in our own laboratory to ensure the quality of tapes. We conduct following test on poly & propylene tapes.

- |                          |                  |
|--------------------------|------------------|
| 1. Tensile strength      | 5. Hot set       |
| 2. Elongation            | 6. Melting point |
| 3. Thermal ageing in air | 7. Spark test.   |
| 4. Heat Shock            |                  |

Three layers of poly & propylene tapes cover the Copper Conductor. First layer is of polyster and other two are WHC & THC. These two are heat seal tapes. As the size of conductor increases we give more strength to the wire by increasing layers of the tape.

Size in mm.	Layers
0.40 --- 1.50	3 Layers
1.60 and above	4 & 5 as per size.

**Lower Outer Dia. :** Incorporating the latest film technology we also have Moniflex L.O.D., which results in higher insulation even with lower outer diameter.

Size in mm.	Covering in mm.
0.40 --- 0.90	0.30
0.90 and above	0.35

**TABLE - 2**

SIZE / COPPER CONDUCTOR DIA. (NOM.) M.M.	THICKNESS OF INSULATION			OVERALL DIAMETER (MAX.) M.M.
	POLYSTER (MIN.) M.M.	POLY PROPYLENE (MIN.) M.M.	TOTAL THICKNESS OF THE INSULATION (MIN.) M.M.	
0.4 / 0.40	0.05	0.10	0.20	0.90
0.5 / 0.50	0.05	0.10	0.20	1.00
0.6 / 0.63	0.05	0.10	0.20	1.10
0.7 / 0.71	0.05	0.10	0.20	1.20
0.8 / 0.80	0.05	0.10	0.20	1.30
0.9 / 0.90	0.05	0.10	0.20	1.40
1.0 / 1.00	0.05	0.10	0.20	1.50
1.1 / 1.12	0.05	0.10	0.20	1.60
1.2 / 1.18	0.05	0.10	0.20	1.70
1.3 / 1.32	0.05	0.10	0.20	1.80
1.4 / 1.40	0.05	0.15	0.25	2.00
1.5 / 1.50	0.05	0.15	0.25	2.10
1.6 / 1.60	0.05	0.15	0.25	2.20
1.7 / 1.70	0.05	0.15	0.25	2.30
1.8 / 1.80	0.05	0.15	0.25	2.40
1.9 / 1.90	0.05	0.15	0.25	2.50
2.0 / 2.00	0.05	0.15	0.25	2.60

IS:8783



Part 4 : Sec.3-1995  
CM/L-8660486



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COATED WIRE FOR SUBMERSIBLE MOTORS





#### Test on Finished Goods

- |                          |                     |
|--------------------------|---------------------|
| 1. High voltage test     | 4. Shrinkage        |
| 2. Spark test            | 5. Hot deformation  |
| 3. Insulation resistance | 6. Water absorption |

**Packing :** Packing is an important aspect of quality control. Submersible winding wires have a very thin insulation, which require careful handling & proper packing to safeguard the product. The wire needs to be saved from sharp edges. For this, we cover each coil by L.D. wrapper and seal it in thick polythene before placing it in a box.

Our Quality Assurance department perform regular online & offline quality checks to ensure high customer satisfaction. We always believe in delivering the best and to remain a quality manufacturer in the industry.



In today's business world everyone is looking for solutions that will keep them profitable and innovating ideas to stand out from the crowd. We makes things possible for them by giving according to their needs. Lets join hands for better & prosperous Future.

*All information given here is in good faith. The company shall not be liable for any damages arising out of incorrect use*

Mfd. By :  
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Dealer