



Parallel bonded magnet wire for more consistent capacitance and impedance characteristics.

Where constant parallel alignment of multiple strands is an advantage, Multifilar[®] magnet wire is the right choice. Its parallel-bonded, color-coded construction offers benefits for many applications.

Engineers should specify Multifilar[®] when concerned with space, weight, and reliability. Where consistent capacitance and impedance characteristics are required, Multifilar magnet wire outperforms windings using two separate magnet wires.

Production users benefit from increased layer winding speeds, tighter windings that deliver more power in less space, reduced

labor and handling. Color coding assists in conductor identification and reduces termination errors.

MWS custom manufactures Multifilar[®] magnet wire to assure flat, parallel construction in sizes 16 AWG and finer, and up to 20 conductors* wide in some sizes.

Ten insulation colors are offered in polyurethane and poly-nylon films. Red, green and natural are standard for all film types. Consult the chart on the next page for available film insulations and colors.

*For constructions of greater than 20 conductors, call or email our sales department.

Multifilar[®] is a registered trademark of MWS Wire Industries

General Product Information

INSULATION CODE NO.	INSULATION TYPE	THERMAL CLASS	DIELECTRIC CONSTANT	NEMA MW 1000 DESIGNATION	AVAILABLE COLORS
1	Polyurethane 155	155	3.70	MW 79-C	Red, Green, Natural, Blue, Yellow Black, Violet, Orange, White, Brown
1	Polyurethane 180	180	3.70	MW 82-C	
2	Poly-Nylon 155	155	3.81	MW 80-C	Red, Green, Natural, Blue, Yellow Black, Violet, Orange, White, Brown
2	Poly-Nylon 180	180	3.81	MW 83-C	
4	Polyester 200	200	3.82	MW 74-C	Red, Green, Natural, Black
5	Armored Polyester	200	3.86	MW 35-C	Red, Green, Natural, Black
6	Solderable Polyester	180	3.76	MW 77-C	Red, Green, Natural, Black
7	Formvar	105	7.40	MW 15-C	Red, Green, Natural, Black
8	Polyimide (ML)	240	3.90	MW 16-C	Red, Green, Natural, Black

BOND CODE NO.	BOND COAT (Operating Temperature)	SOLVENT*
1	Polyvinyl Butyral (105°C)	Alcohol
2	Nylon (105°C)	None
3	Epoxy (130°C)	MEK or Acetone
4	Polyester (130°C)	None
5	Polyamide (165°C)	None
6	Polyimide (ML) (240°C)	None

BOND THICKNESS STANDARDS		
AWG SIZE	THICKNESS	TOLERANCE
16-20	.0007"	± .0002"
21-28	.0005"	± .0002"
29-32	.0004"	± .0001"
33-36	.0003"	± .0001"
37-41	.0002"	± .0001"
42-finer	.0001"	+ .0001"/-0

* Bonding films can be softened and removed by immersion in the solvent noted, except nylon, polyester, polyamide and ML which are non-soluble. Wiping with a soft cloth dampened with solvent may be necessary to separate wires.

Finished wire thermal class based on the underlying enamel of the individual strand.

Part Number Ordering System — Make your own part number by following the guidelines outlined below

Product Letter	Number of Conductors	AWG Size	Insulation Build	Insulation Type	Color Code	Bonding Film	Thermal Class
B	2	38	1	1	1	1	(155)
For all Multifilar magnet wire	Use () for more than 9 conductors		1 = single 2 = heavy 3 = triple 4 = quadruple	See above chart for correct code number	0 = none required 1 = red/green 2 = green/clear 3 = red/green/clear 4 = red/green/clear/blue 9 = special — call for color code	See above chart for correct code number	For Poly and Poly-Nylon insulations specify 155 or 180 thermal class
EXAMPLE = 2 Conductors — 38 AWG Single Polyurethane 155° — Red/Green — Butyral Bond							