IEC 60317-20 MULTIFILAR BONDED MAGNET WIRE

MULTIFILAR BONDED MAGNET WIRE

Parallel Multifilar Self-Bonding Polyurethane Enamelled Copper

IEC 60317-20 / IEC 60317-35 · Up to 1000 V · −40…+155 °C industrial MULTIFILAR BONDED



IEC 60317-20 / IEC 60317-35 | Up to 1000 V | −40…+155 °C

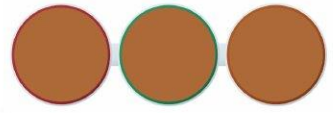
Application

Parallel Multifilar Self-Bonding Polyurethane Enamelled Copper Winding Wire (MULTIFILAR BONDED MAGNET WIRE) engineered to IEC 60317-20 / IEC 60317-35 for Up to 1000 V service across −40…+155 °C, featuring stranded copper conductor and polyvinyl-butyral

Typical uses: Automated Assembly & Packaging Lines, CNC Machine Tools & Robotics, PLC/DCS Control & Marshalling Cabinets, Industrial Drives & Motor Manufacturing, Avionics Backplanes & Rack Interconnects

Construction





Cross-section, not to scale

1	Stranded copper conductor	IEC 60317-20 / IEC 60317-35
2	Polyurethane 155 enamel	IEC 60317-20 / IEC 60317-35
3	Polyvinyl-butyral bond coat	IEC 60317-20 / IEC 60317-35

Technical data

Typical values

Rated voltage / duty	Up to 1000 V (IEC 60317-20 / IEC 60317-35)	**Conductor construction**	Stranded copper conductor — High-conductivity copper conductor per IEC 60317-20 / IEC 60317-35
Primary insulation / dielectric	Polyurethane 155 enamel — Polyurethane 155 enamel (individual core / group layer)	**Continuous operating temperature**	−40…+155 °C per IEC 60317-20 / IEC 60317-35
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	Polyvinyl-butyral bond coat — Extruded Polyvinyl-butyral bond coat protective layer (individual core / group layer)	**Minimum bending radius**	5 × OD (installed / static routing)
Layer count & geometry	3 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with IEC 60317-20 / IEC 60317-35
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	IEC 60317-20 / IEC 60317-35

Sizes

10 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Nominal conductor	Max. overall Ø mm	Weight ≈ kg/km	Min. mandrel R mm
MULTIFILAR BONDED MAGNET WIRE Standard Precision Winding Schedule (−40…+155 °C) 10 sizes				
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 0.25 mm**	**Ø 0.25 mm (AWG 30)**	**0.29**	**0.45**	**2**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 0.40 mm**	**Ø 0.40 mm (AWG 26)**	**0.45**	**1.14**	**2**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 0.63 mm**	**Ø 0.63 mm (AWG 22)**	**0.69**	**2.82**	**3**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 0.80 mm**	**Ø 0.80 mm (AWG 20)**	**0.87**	**4.54**	**4**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 1.00 mm**	**Ø 1.00 mm (AWG 18)**	**1.08**	**7.08**	**5**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 1.25 mm**	**Ø 1.25 mm (AWG 16)**	**1.34**	**11.00**	**6**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 1.60 mm**	**Ø 1.60 mm (AWG 14)**	**1.70**	**18.10**	**8**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 2.00 mm**	**Ø 2.00 mm (AWG 12)**	**2.11**	**28.20**	**10**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 2.50 mm**	**Ø 2.50 mm (AWG 10)**	**2.62**	**44.10**	**13**
☐ **MULTIFILAR BONDED MAGNET WIRE Ø 3.15 mm**	**Ø 3.15 mm (AWG 8)**	**3.28**	**70.00**	**16**

– Supplied on precision PT25 / PT45 / PT90 / Din 355 conical and cylindrical winding spools per IEC 60317-20 / IEC 60317-35.

DC resistance & dielectric breakdown voltage

5 sizes

Conductor size	Nominal R_{20} Ω/km	Min. breakdown VAC	Thermal class
Ø 0.25 mm (0.049 mm²)	**351.00**	**4,200**	**−40…+155 °C**
Ø 0.63 mm (0.312 mm²)	**55.30**	**5,000**	**−40…+155 °C**
Ø 1.00 mm (0.785 mm²)	**21.90**	**5,500**	**−40…+155 °C**
Ø 1.60 mm (2.011 mm²)	**8.57**	**5,800**	**−40…+155 °C**
Ø 2.50 mm (4.909 mm²)	**3.51**	**6,000**	**−40…+155 °C**

– Tested in accordance with IEC 60851-5 / IEC 60317-20 / IEC 60317-35 routine dielectric and elongation test methods.

Standards and approvals

- IEC 60317-20 Compliant
- EN 10204 3.1 Routine Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/multifilar-self-bonding-enamelled-copper-winding-wire

Typical values for this cable type, based on IEC 60317-20 / IEC 60317-35. Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.