IEC 60317-35 MW 131-C / IEC 60317-35 PB155

MW 131-C / IEC 60317-35 PB155

Class 155 Solderable Polyurethane Self-Bonding Enamelled Copper

IEC 60317-35 / NEMA MW 131-C · Up to 1000 V · −40…+155 °C industrial MW 131-C / IEC

IEC 60317-35 / NEMA MW 131-C | Up to 1000 V | −40…+155 °C



Application

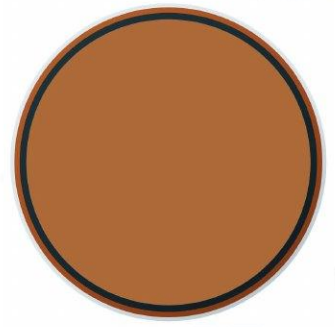
Class 155 Solderable Polyurethane Self-Bonding Enamelled Copper Magnet Wire (MW 131-C / IEC 60317-35 PB155) engineered to IEC 60317-35 / NEMA MW 131-C for Up to 1000 V service across −40…+155 °C, featuring stranded copper conductor and thermoplastic

Typical uses: Automated Assembly & Packaging Lines, CNC Machine Tools & Robotics, PLC/DCS Control & Marshalling Cabinets, Industrial Drives & Motor Manufacturing, Passenger & Commercial Vehicle Harnesses

Construction



BONDABLE MAGNET WIRE PB155 TEBAOFLEX.COM



Cross-section, not to scale

1	Stranded copper conductor	IEC 60317-35 / NEMA MW 131-C
2	Polyurethane enamel base	IEC 60317-35 / NEMA MW 131-C
3	Thermoplastic butyral bonding film	IEC 60317-35 / NEMA MW 131-C

Technical data

Typical values

Rated voltage / duty	Up to 1000 V (IEC 60317-35 / NEMA MW 131-C)	**Conductor construction**	Stranded copper conductor — High-conductivity copper conductor per IEC 60317-35 / NEMA MW 131-C
Primary insulation / dielectric	Polyurethane enamel base — Polyurethane enamel base (continuous layer)	**Continuous operating temperature**	−40…+155 °C per IEC 60317-35 / NEMA MW 131-C
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	Thermoplastic butyral bonding film — Extruded Thermoplastic butyral bonding film protective layer (continuous layer)	**Minimum bending radius**	4 × 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 60317-35 / NEMA MW 131-C
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	IEC 60317-35 / NEMA MW 131-C

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
MW 131-C / IEC 60317-35 PB155 Standard Precision Winding Schedule (−40…+155 °C) 10 sizes				
☐ MW 131-C / IEC 60317-35 PB155 Ø 0.25 mm	Ø 0.25 mm (AWG 30)	0.29	0.45	2
☐ MW 131-C / IEC 60317-35 PB155 Ø 0.40 mm	Ø 0.40 mm (AWG 26)	0.45	1.14	2
☐ MW 131-C / IEC 60317-35 PB155 Ø 0.63 mm	Ø 0.63 mm (AWG 22)	0.69	2.82	3
☐ MW 131-C / IEC 60317-35 PB155 Ø 0.80 mm	Ø 0.80 mm (AWG 20)	0.87	4.54	4
☐ MW 131-C / IEC 60317-35 PB155 Ø 1.00 mm	Ø 1.00 mm (AWG 18)	1.08	7.08	5
☐ MW 131-C / IEC 60317-35 PB155 Ø 1.25 mm	Ø 1.25 mm (AWG 16)	1.34	11.00	6
☐ MW 131-C / IEC 60317-35 PB155 Ø 1.60 mm	Ø 1.60 mm (AWG 14)	1.70	18.10	8
☐ MW 131-C / IEC 60317-35 PB155 Ø 2.00 mm	Ø 2.00 mm (AWG 12)	2.11	28.20	10
☐ MW 131-C / IEC 60317-35 PB155 Ø 2.50 mm	Ø 2.50 mm (AWG 10)	2.62	44.10	13
☐ MW 131-C / IEC 60317-35 PB155 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 60317-35 / NEMA MW 131-C.

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 60317-35 / NEMA MW 131-C routine dielectric and elongation test methods.

Standards and approvals

- IEC 60317-35 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/mw-131-c-pb155-self-bonding-polyurethane-magnet-wire

Typical values for this cable type, based on IEC 60317-35 / NEMA MW 131-C. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.