



ISO 6722 High-Temperature & Specialty Polymer Automotive Wires (4Y / 5Y / 6Y / 7Y / 9Y)

FLR9Y-A

FLR9Y Automotive Wire

60 V DC ISO 6722-1 Class C (-40 to +125 °C) polypropylene (9Y / PP) ultra-lightweight halo



60 V DC ISO 6722-1 Class C

Polypropylene 9Y (PP) Halogen-Free

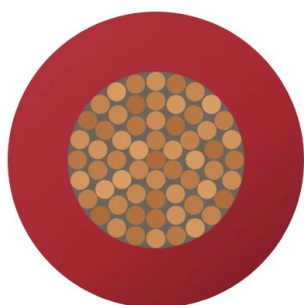
Ultra-Low Density & High Scrape

Application

FLR9Y-A is an ISO 6722-1 Class C (-40 °C to +125 °C) halogen-free reduced-wall automotive primary wire insulated with impact-modified polypropylene copolymer ('9Y' = PP). Boasting the lowest insulation density of any automotive polymer ($\approx 0.91\text{--}0.98\text{ g/cm}^3$ vs 1.3

Typical uses: EV lightweight cabin harnesses, Cockpit & instrument-panel looms, High-density ECU signal trunks, Roof, console & body electronics, Halogen-free bus & rail interiors

Construction



Cross-section, not to scale

1	Cu-ETP1 concentric copper (Type A)	ISO 6722-1
2	Polypropylene copolymer (9Y / PP)	DIN 72551
3	Hard low-friction PP outer surface	ISO 6722-1

Technical data

Typical values

Nominal voltage	60 V DC / 25 V AC	Wet dielectric test	3.0 kV AC rms for 5 min ($\geq 0.5 \text{ mm}^2$) · 1.0 kV ($< 0.5 \text{ mm}^2$)
In-line spark test	5.0 kV AC rms ($\geq 0.5 \text{ mm}^2$)	Thermal class	ISO 6722-1 Class C: -40 °C to +125 °C (3000 h)
Short-term heat & melt point	240 h at +150 °C · PP crystalline melting point $\approx$ +160–165 °C	Cold winding test	-40 °C for 4 hours without cracking
Min. wall thickness	0.20 mm (0.22–0.5 mm ²) · 0.24 mm (0.75–1.5 mm ²) · 0.28 mm (2.5 mm ²)	Needle scrape abrasion	High Shore hardness exceeds PVC FLRY scrape cycles by 2–4×
Halogen & plasticiser content	100 % halogen-free and plasticiser-free (zero windshield fogging)	Chemical resistance	Resists battery acid, coolant, brake fluid, washer fluid & alkalis
Standards	ISO 6722-1 Class C, DIN 72551 & VDA LV 112		

Sizes

8 standard constructions

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

Designation	Type & Size mm ²	Strands × Ø / Wall mm	Max. OD mm	Copper kg/km	Total mass ≈ kg/km	Min. bend R mm
FLR9Y-A size range 8 sizes						
☐ FLR9Y-A 0.13 mm ²	0.13 mm ² Type A	7×0.16 · 0.20 mm	0.95	1.2	1.8	3.8
☐ FLR9Y-A 0.22 mm ²	0.22 mm ² Type A	7×0.21 · 0.20 mm	1.15	2.1	2.8	4.6
☐ FLR9Y-A 0.35 mm ²	0.35 mm ² Type A	7×0.26 · 0.20 mm	1.30	3.3	4.1	5.2
☐ FLR9Y-A 0.50 mm ²	0.50 mm ² Type A	19×0.19 · 0.22 mm	1.55	4.8	5.9	6.2
☐ FLR9Y-A 0.75 mm ²	0.75 mm ² Type A	19×0.23 · 0.24 mm	1.85	7.2	8.6	7.4
☐ FLR9Y-A 1.00 mm ²	1.00 mm ² Type A	19×0.26 · 0.24 mm	2.05	9.6	11.2	8.2
☐ FLR9Y-A 1.50 mm ²	1.50 mm ² Type A	19×0.32 · 0.24 mm	2.35	14.4	16.3	9.4
☐ FLR9Y-A 2.50 mm ²	2.50 mm ² Type A	19×0.41 · 0.28 mm	2.95	24.0	26.8	11.8

– Dimensions and maximum overall diameters conform to ISO 6722-1 Class C / DIN 72551 / LV 112.

Electrical data

8 sizes

Type & Size mm ²	Max. DC R @ 20 °C mΩ/m	Single wire in air A	In harness bundle A
0.13 mm ² Type A	136.00	4	3
0.22 mm ² Type A	84.80	6	5
0.35 mm ² Type A	54.40	9	7
0.50 mm ² Type A	37.10	12	9
0.75 mm ² Type A	24.70	17	13
1.00 mm ² Type A	18.50	21	16
1.50 mm ² Type A	12.70	27	21
2.50 mm ² Type A	7.60	36	28

– Current ratings are reference values at +25 °C ambient; derate for multi-wire harness bundles and elevated engine-bay temperatures.

Standards and approvals

- ✓ ISO 6722-1 Class C (+125 °C)
- ✓ DIN 72551 (9Y Polypropylene)
- ✓ VDA LV 112 Halogen-Free
- ✓ RoHS 3 & ELV Compliant

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/flr9y-automotive-wire



Typical values for this cable type, based on ISO 6722-1 Class C / DIN 72551 / LV 112. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.