High-temperature fluoropolymer, silicone & HV wires

SAE J2031 Class E Ignition Cable

SAE J2031 Class E 7 mm 220 °C Silicone Ignition Cable

7 mm 40 kV SAE J2031 Class E automotive & industrial engine ignition wire



SAE J2031 Class E | 40 kV · +220 °C | Silicone HV

Application

SAE J2031 Class E 7 mm Ignition combines an EMI-suppressing spiral alloy/carbon core with EPDM/silicone insulation, reinforcing fibreglass braid, and a black 220 °C silicone outer jacket for industrial gas engines and vehicles.

Typical uses: Industrial oil/gas burners & steam boilers, Stationary CHP gas engines & cogeneration, Automotive, motorsport & heavy-duty ignition, X-ray, laser & high-voltage DC power supplies

Construction





Cross-section, not to scale

1	**Conductor**	Spiral wire-wound stainless resistance alloy EMI-suppression core over carbon-ferrite center · SAE J2031 / ISO 3808
2	**Inner HV dielectric**	High-dielectric inner elastomer + reinforcing fibreglass braid · SAE J2031 Class E
3	**Reinforcing fibreglass braid**	Woven high-tensile fibreglass reinforcing braid · SAE J2031 Class E
4	**Outer silicone jacket**	Black 7 mm 220 °C fuel- & heat-resistant silicone outer jacket · 40 kV Breakdown Rating

Technical data

Typical values

Rated voltage	40 kV	**Test voltage**	40 kV DC
Conductor	Spiral EMI Alloy	**Insulation**	High-dielectric inner elastomer +
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	**Temp. range (fixed)**	-55 °C to +220 °C
Temp. range (flexing)	-40 °C to +220 °C	**Peak / short-circuit**	+220 °C (short-term)
Min. bending radius	8 × OD (fixed)	**Flame / fire rating**	40 kV Breakdown Rating
Thermal / chemical	220 °C Class E Silicone	**Mechanical / special**	Fuel, Oil & Ozone Proof
Outer finish	Black 7 mm 220 °C fuel- & heat-resistant		

Sizes

4 standard constructions

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

Outer Ø · CoreType	Outer Ø ≈ mm	Max. R20 Ω/km	Metal index kg/km	Weight ≈ kg/km	Min. bend R 8×D mm
☐ 7 mm · Spiral Alloy (2 kΩ/m)	7.0	2,000,000.00	9	68	56
☐ 7 mm · Carbon Core (10 kΩ/m)	7.0	10,000,000.00	4	62	56
☐ 8 mm · Spiral Alloy (1.5 kΩ/m)	8.0	1,500,000.00	10	86	64
☐ 8.5 mm · Heavy Silicone (1 kΩ/m)	8.5	1,000,000.00	11	98	68

- Conductor DC resistance R20 at 20 °C per SAE J2031 / ISO 3808.
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- ✓ SAE J2031 Class E
- ✓ ISO 3808 Class E
- ✓ ISO 6856
- ✓ EN 10204 3.1 Factory 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/sae-j2031-class-e-7mm-220c-silicone-ignition-cable

Typical values for this cable type, based on SAE J2031 Class E · ISO 3808 Class E · ISO 6856. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.