High-current water-cooled, furnace & shunt cables

SAF Water-Cooled Cable

SAF Submerged Arc Furnace Water-Cooled Feeder Cable

High-current multi-rope water-cooled rubber hose cable for ferroalloy SAF furnaces

DIN VDE 0250 (ref.) | 1000 V · +90 °C | Water-Cooled HC



Application

SAF Water-Cooled Cable strands extra-flexible Class 6 bare copper ropes around a central coolant channel inside a reinforced black EPDM rubber hose for continuous 1,000 V submerged-arc furnace electrode feeds.

Typical uses: Electric arc (EAF) & submerged arc (SAF) steelworks, Medium- & high-frequency induction melting foundries, Automotive robotic spot- & seam-welding lines, Heavy DC rectifiers & metallurgical bus feeders

Construction





Cross-section, not to scale

1	**Conductor**	IEC 60228 Class 6 extra-flexible bare annealed copper · IEC 60228 Class 6
2	**Cooling core / primary dielectric**	Central high-pressure EPDM coolant tube + multi-rope copper assembly · DIN VDE 0250 (ref.)
3	**Strength / pressure reinforcement**	High-tensile woven synthetic/fibreglass pressure reinforcement braid · DIN VDE 0250 (ref.)
4	**Outer sheath / hose**	Black textile-reinforced heat- & splash-resistant EPDM rubber outer hose

Technical data

Typical values

Rated voltage	1000 V	Test voltage	4 kV AC
Conductor	Bare Cu · Cl.6	Core / dielectric	Central high-pressure EPDM coolant tube +
Impedance / insulation	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-25 °C to +90 °C
Temp. range (flexing)	-20 °C to +80 °C	Peak / short-circuit	+160 °C (5 s)
Min. bending radius	8 × OD	Primary performance	Continuous Water Cooling
Environment / duty	Flame & Slag Resistant EPDM	Mechanical / special	Up to 10 kA Furnace Duty
Outer finish	Black textile-reinforced heat- &		

Sizes

7 standard constructions

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

Cross-section mm²	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 8×D mm
☐ 1×300 mm²	55.2	0.064	2,880	6,456	442
☐ 1×400 mm²	61.0	0.049	3,840	8,362	488
☐ 1×500 mm²	66.1	0.038	4,800	10,250	529
☐ 1×630 mm²	72.0	0.029	6,048	12,684	576
☐ 1×800 mm²	78.8	0.024	7,680	15,837	630
☐ 1×1000 mm²	86.0	0.019	9,600	19,533	688
☐ 1×1200 mm²	92.5	0.016	11,520	23,210	740

- Conductor DC resistance R20 at 20 °C per IEC 60228 Class 6.
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom terminations available on request.

Standards and approvals

- DIN VDE 0250 (ref.)
- IEC 60228 Class 6
- EN 50363-2-1
- 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/saf-submerged-arc-furnace-water-cooled-cable

Typical values for this cable type, based on DIN VDE 0250 (ref.) · IEC 60228 Class 6 · EN 50363-2-1. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.