



PN-G-90100 Polish Mining Rubber Cables

OnG1 Cable

PN-G-90103 · 0.6/1 kV · Class 5 Cu · EPR insulation · Unscreened · Flame-retardant PCP



PN-G-90103

0.6/1 kV

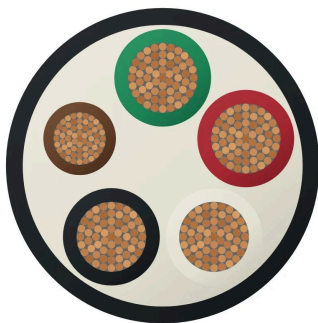
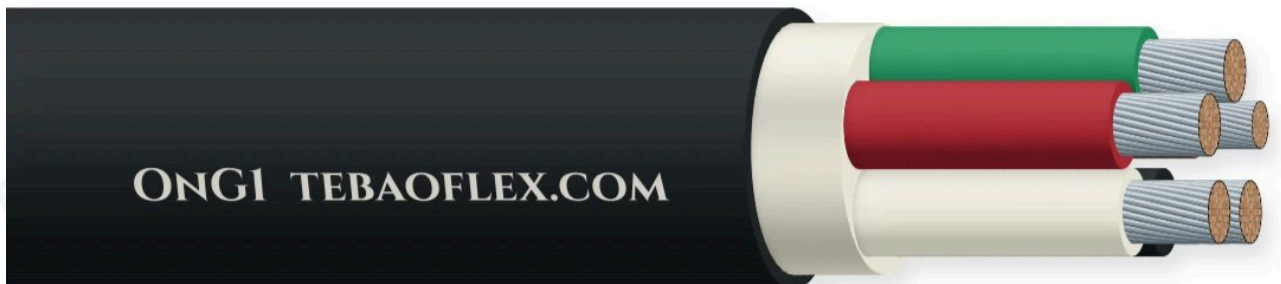
Multi-Core Mining Control

Application

OnG1 is a Polish-standard 0.6/1 kV flexible multi-core unscreened mining rubber control, signalling, and auxiliary power cable manufactured to PN-G-90103. Built with Class 5 copper conductors, EPR core insulation, and an oil- and flame-retardant

Typical uses: Underground Coal & Copper Mining, Roadway Conveyor Systems, Mineral Processing Plants, Tunnelling & Shaft Signalling, Surface Quarry Control Gear

Construction



Cross-section, not to scale

1	Flexible copper conductor	IEC 60228 Class 5
2	EPR core insulation	PN-G-90103
3	Concentric multi-core lay-up	PN-G-90103
4	Separating binding tape	
5	Outer protective sheath	PN-G-90100 / PN-G-90103

Technical data

Typical values

Rated voltage U0/U	0.6/1 kV AC	Maximum system voltage Um	1.2 kV AC (1.5 kV DC)
Routine AC test voltage	3.0 kV rms / 5 min	Specific volume resistivity	$\geq 10^{12} \Omega \cdot \text{cm}$ at +20 °C
Nominal frequency	50 / 60 Hz & DC control	Conductor resistance class	IEC 60228 Class 5
Max. conductor operating temp.	+70 °C continuous	Max. short-circuit temperature	+200 °C (max. 5 s)
Mobile ambient range	-25 °C to +60 °C	Fixed ambient range	-40 °C to +60 °C
Min. installation temperature	-15 °C	Thermal overload margin	+85 °C emergency rating
Min. bend radius (fixed)	6 × overall diameter (D)	Min. bend radius (flexing)	10 × overall diameter (D)
Max. tensile pull on copper	15 N/mm ² total conductor area	Impact & crush resistance	Heavy underground gallery duty
Abrasion resistance	High-tear PCP outer compound	Torsional stress rating	Not intended for free torsion
Flame retardance	IEC 60332-1-2 / PN-G-90100	Mineral oil resistance	EN 60811-404 oil-resistant PCP
Mine water & humidity	Resistant to acidic/alkaline mine water	Ozone & weathering	Ozone-resistant EPR & PCP compounds
Chemical & grease exposure	Resistant to hydraulic emulsions	Halogen content	Polychloroprene (contains halogens)
Standards	PN-G-90103 / ZN-TF-202		

Sizes

12 standard constructions

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

Order designation	Configuration	Phase size mm ²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard OnG1 configurations 12 sizes						
☐ OnG1 7×1.5	7×1.5	1.5	16.5	101	390	99
☐ OnG1 10×1.5	10×1.5	1.5	19.8	144	540	119
☐ OnG1 12×1.5	12×1.5	1.5	20.6	173	605	124
☐ OnG1 14×1.5	14×1.5	1.5	21.8	202	680	131
☐ OnG1 19×1.5	19×1.5	1.5	24.5	274	870	147
☐ OnG1 24×1.5	24×1.5	1.5	28.2	346	1,120	169
☐ OnG1 30×1.5	30×1.5	1.5	30.5	432	1,360	183
☐ OnG1 37×1.5	37×1.5	1.5	33.0	533	1,620	198
☐ OnG1 7×2.5	7×2.5	2.5	18.4	168	505	110
☐ OnG1 12×2.5	12×2.5	2.5	23.2	288	810	139
☐ OnG1 19×2.5	19×2.5	2.5	27.6	456	1,190	166
☐ OnG1 24×2.5	24×2.5	2.5	31.8	576	1,530	191

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per PN-G-90103 / ZN-TF-202.

Electrical & ampacity data

12 sizes

Configuration	Max. DCR @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V rms
7×1.5	13.300	19	16	80	3,000
10×1.5	13.300	19	16	80	3,000
12×1.5	13.300	19	16	80	3,000

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V _{rms}
14×1.5	13.300	19	16	80	3,000
19×1.5	13.300	19	16	80	3,000
24×1.5	13.300	19	16	80	3,000
30×1.5	13.300	19	16	80	3,000
37×1.5	13.300	19	16	80	3,000
7×2.5	7.980	26	22	82	3,000
12×2.5	7.980	26	22	82	3,000
19×2.5	7.980	26	22	82	3,000
24×2.5	7.980	26	22	82	3,000

– Current ratings apply at +25/+30 °C ambient in free air; apply standard derating factors for elevated ambient or drum coiling.

Standards and approvals

✓ PN-G-90103 / PN-G-90100

✓ IEC 60332-1-2

✓ CE / RoHS

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/ong1-cable



Typical values for this cable type, based on PN-G-90103 / ZN-TF-202. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.