O2nGcekż-G FLEX 0,6/1 kV

MINING CABLES

Power cable with copper wires, with heat-resistant elastomer insulation with insulation made of flexible polymer material, with a shield on the conductors in the form of a conductive tape, braid made of tinned copper wires and plastic threads in a double-layer sheath made of flexible non-spreading polymer material flame to supply mobile and portable receivers with a rated voltage of 0.6 / 1 kV.	
According to	ZN-FKR-020:2008/A5:2020; PN-EN 60332-1-2:2010/A1:2016-02
BUILD	
Conductor	Tinned, annealed copper class.5 flexible conductor acc.to PN-EN 60228:2007
Insulation of power cores	Polymer material with properties corresponding to the IEP type heat-resistant rubber according to PN-89 / E-29100.
Coating on the center of auxiliary veins	Polymer material with properties corresponding to the IEP type heat-resistant rubber according to PN-89 / E-29100.
The screen on the working cores and the set of auxiliary cores	Screen on each working strand and set of auxiliary strands in the form of a conductor tape wrapping and a braid made of copper, tinned wires and plastic yarns with an opacity of at least 30%
Earth core	Non-insulated protective conductor, placed symmetrically with respect to the working conductors. In 4-core cables with 25 mm2 to 95 mm2 conductors, it is allowed to divide the protective conductor into 4 parts (3 elements placed between the working wires, 1 element arranged centrally).
Strengthening braid	Plastic fiber braid (polyester or aramid).
Cable core	The core of the conductors consists of shielded working conductors, 3 or 6 auxiliary conductors in a common sheath and screen, twisted on an uninsulated, longitudinally arranged tinned copper cord constituting a protective conductor, in contact with the screens of all conductors along the entire length of the conductor.
Sheath	Flame-resistant, oil-resistant polymer material with properties corresponding to the ON4 type blend according to PN-E-90140: 1986.
Colour od sheath	Black
Identyfikacja żył	Power cores : blue, natural, red 3 Control (auxiliary) cores : blue, natural, red 6 Control (auxiliary) cores : 2x blue, 2xnatural, 2xred
CHARACTERISTIC	
Rated voltage	0,6/1 kV
Test voltage	Power cores - 3,5 kV; pilot cores - 2 kV
Temperature range	-50 °C ÷ +90 °C
Minimum temperature of laying	-40 °C
Minimum bending radius	fixed installations – 3D; flexible connections – 4D
Example of marking cable	**ROGUM KABLE sp. z o.o. O2nGcekż-G FLEX 0,6/1kV 3x50+25+3x4 mm² ID: 2081725 2019 1612 mb** A power cable with copper conductors, heat-resistant elastomer insulation (Gc) and a two-layer flame-retardant elastomer tire (O2n) with shielded conductors (ekż), mining (G). FLEX- cable with increased flexibility. Each cable has a legible and permanent marking repeated cyclically, marked longitudinally on the outer sheath, including in particular: manufacturer's name, cable / wire type, cross-section, number of wires, rated voltage, identifier, year of production and the length of the delivered section. The marking of conductors with working conductors above 25mm2 has an embossed form.

APPLICATION

Cables are designed to operate fixed and portable power devices operating in open pit and underground mines, in the fields of non-methane and methane in excavations classified as "a", "b" or "c" methane explosion class and "A" or "B "coal dust explosion hazard.

CERTIFICATES AND APPROVALS

Atest EMAG

ADDITIONAL INFORMATION

On request there is a possibility:
• change the color of the sheath

In all cases concerning detailed technical data please contact our Client Advisor:
doradztwotechniczne@rogum.com.pl

CARD NUMBER	14	EDITION	06-03-2020

NUMBER AND TYPE OF CORES

Total number of cores in the cable	Type of cores		
	Power cores	Earth core	Control (auxiliary) cores
n	n	n	n
4	3	1	-
7	3	1	3
10	3	1	6

BUILD

Total number of cores in the cable	Number and cross-sections of cores Power cores + earth cores + control cores	Maximum diameter of cable	Approximate weight of the cable
n	n x mm²	mm	kg/km
4	3x16+10	42,0	1250
	3x25+16*	42,0	1700
	3x35+16*	44,9	2100
	3x50+25*	50,6	2800
	3x70+35*	55,6	3600
	3x95+35*	60,3	3700
7	3x16+10+3x2,5	42,8	1500
	3x25+16+3x2,5	43,0	1900
	3x35+16+3x2,5	47,0	2500
	3x50+25+3x4	51,8	3200
	3x70+35+3x4	58,8	4000
10	3x35+16+6x2,5	46,5	2500
	3x50+25+6x2,5	51,8	3300
	3x50+25+6x4	51,8	3400
	3x70+35+6x2,5	56,8	4100
	3x70+35+6x4	56,8	4200
	3x95+35+6x4	64,0	5300

** protective conductor divided into 4 parts (three in the recesses between the working conductors, one placed centrally)*

PARAMETERS

Nominal cross-section of the working conductor	The highest conductor resistance at 20 °C	Current carrying capacity at ambient temperature at 25 °C	Unit inductance	Unit inductive reactance	Unit capacity to ground
mm^2	Ω/km	A	mH/km	Ω/km	µF/km
16	1,24	118	0,30641	0,09621	0,28138
25	0,795	152	0,28092	0,08821	0,34561
35	0,565	187	0,27270	0,08563	0,36863
50	0,393	233	0,26521	0,08328	0,41712
70	0,277	288	0,26055	0,08181	0,46348
95	0,210	345	0,26630	0,08362	0,47345