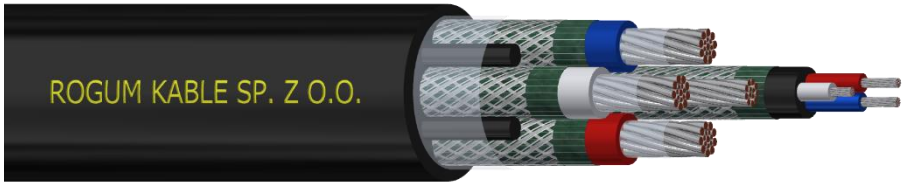
OnGcekż-G FLEX 0,6/1 kV



Mining power cable for mobile and portable power devices, shielded, rated voltage 0,6/1kV	
According to	ZN-FKR-020:2008/A6:2020; PN-EN 60332-1-2:2010/A1:2016-02
CONSTRUCTION	
Conductor	Annealed, multi-stranded, tinned copper, class 5 flexible conductor according to PN-EN 60228
Insulation	Heat resistant polymer material with properties corresponding to IEP type material acc. to PN-89/E-29100
Auxiliary cores sheath	Heat resistant polymer material with properties corresponding to IEP type material acc. to PN-89/E-29100
Shield	Power cores shielded individually, auxiliary cores shielded by a common screen, shield made of a layer of conductive tape and a braided copper wire and synthetic yarn with an opacity of at least 30%
Protective core	Non-insulated protective core placed symmetrically along power cores. In case of 4 cores cables with power conductors cross sections ranging from 25 mm^2 to 95 mm^2 protective core could be split into 4 parts (3 parts placed between power cores and one placed centrally)
Cable core	Cable core consists of 3 individually shielded power cores, 3 or 6 auxiliary cores stranded together with a common sheath and shield. All cores stranded around non-insulated protective core, remaining in contact with shields along the entire length of the cable.
Sheath	Polymer material with flame retarding and oil-proof properties corresponding to material type ON4 according to PN-E-90140:1986
Sheath colour	Black
Insulation colour	Power cores: blue, natural, red 3 auxiliary cores: blue, natural, red 6 auxiliary cores: 2 blue, 2 natural, 2 red
CHARACTERISTIC	
Rated voltage Uo/U	0,6/1 kV
Test voltage for power cores	3,2 kV
Test voltage for auxiliary cores	2 kV
Maximum core temperature during operation	+90 °C
Maximum core temperature during short circuit	+250 °C
Ambient temperature range for permanently installed cables	-40°C to +90°C
Ambient temperature range for mobile connections	-25°C to +80°C
Minimum bending radius	Fixed installation – 3D; Mobile connections – 4D
Cable name explanation	OnGcekż-G FLEX – Sheathed (O) power cable with heatproof insulation (Gc), sheath made of elastomeric flame retardant material (n), shielded cores (ekż), designed for mining applications (G) with increased flexibility (FLEX).

MINING CABLES - ELASTOMERIC

Cable marking	OnGcekż-G FLEX 0,6/1kV 3x50+25+3x4 mm^2 ROGUM KABLE Sp. z o.o. + cable ID + meter mark + year of production Each cable has a legible and permanent marking repeated cyclically, printed or embossed (in case of power cores with diameter equal or greater than 25 mm^2) longitudinally on 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.

APPLICATION

Cables designed for powering 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.

CERTIFICATES AND APPROVALS

EMAG certificate (Łukasiewicz Research Network – Institute of Innovative Technologies)

ADDITIONAL INFORMATION

On request there is a possibility:

- change the colour of the sheath

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

CARD NUMBER	13	EDITION	21-03-2023

CABLE CONSTRUCTION			
Total number of cores	**Core type**		
	Power cores	**Protective conductor**	**Auxiliary cores**
n	**n**	**n**	**n**
4	3	1*	-
7	3	1	3
10	3	1	6
in case of cables with power cores cross section ranged between 25 mm^2 and 95 mm^2, protective core divided into 4 parts (3 placed between power cores and one placed centrally)			

CABLE CONSTRUCTION			
Total number of cores	Number of cores and cross-sectional area Power cores +protective conductor +auxiliary cores	Maximum cable diameter	Approximated cable weight
n	n x mm²	mm	kg/km
4	3x16+10	42,0	1500
	3x25+16*	42,0	1900
	3x35+16*	44,9	2400
	3x50+25*	50,6	3100
	3x70+35*	55,6	4000
	3x95+35*	60,3	4750
7	3x16+10+3x2,5	42,8	1700
	3x25+16+3x2,5	43,0	2200
	3x25+16+3x4	43,0	2700
	3x35+16+3x2,5	47,0	2750
	3x35+16+3x4	47,0	2580
	3x50+25+3x4	51,8	3550
	3x70+35+3x4	58,8	4500
	3x95+35+3x4	64,0	5550
10	3x35+16+6x2,5	46,5	2750
	3x50+25+6x2,5	51,8	3600
	3x50+25+6x4	51,8	3650
	3x70+35+6x2,5	56,8	4550
	3x70+35+6x4	58,8	4600
	3x95+35+6x4	64,0	5750
	3x120+50+6x4**	73,5	7400

** protective core divided into 4 arts (3 placed between power cores and one placed centrally)*
*** custom cable on client request*

PARAMETERS					
Nominal cross-sectional area of the power core conductor	Highest core resistance at 20 °C	Current carrying capacity at ambient temperature at 25 °C	Unit inductance	Unit inductive reactance	Unit capacity to ground
mm²	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