

## OnZGcekż-GW (A), OnZGcekż-G (A) FLEX 0,6/1 kV



Mining power cables for mobile and portable power devices, shielded, rated voltage 0,6/1 kV				
According to	ZN-FKR-020:2008/A6:2020; PN-EN 60332-1-2:2010			
CONSTRUCTION				
Conductor	Annealed multi-strai	nded tinned copper, class 5 flexible conductor according to PN-EN 60228		
Insulation	Heat resistant polymer material with properties corresponding to IEP type material according to PN-89/E-29100			
Auxiliary cores sheath	Heat resistant polymer material with properties corresponding to IEP type material according 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 braid made of synthetic threads and tinned copper wires, with an opacity of at least 30%			
Protective conductor	Non-insulated protective conductor placed between power cores.			
Uszczelnienie	Water absorbing, swelling tape, wrapped around whole core length with a thickness of at least 5 mm after swelling (applies only to OnZGcekż-GW (A))			
Reinforcement	Reinforcement made of braided aramid fiber with tensile stress resistance of at least 40kN, embedded between inner and outer layer of the sheath			
Cable core	Cable core consists of individually shielded power cores and 3 or 6 auxiliary cores stranded together in common sheath and shield. All cores stranded around non-insulated tinned copper protective conductor, 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 Double layered sheath with braided aramid fibre reinforcement			
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 cor	es	3,2 kV		
Test voltage for auxiliary of	ores	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-GW 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), waterproof (W), braided aramide fiber reinforcement (A) and increased flexibility (FLEX)	
Cable marking	OnZGcekż-GW (A) FLEX 0,6/1kV 3x50+25+3x4 mm² 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 mm²) 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 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: <a href="mailto:doradztwotechniczne@rogum.com.pl">doradztwotechniczne@rogum.com.pl</a>

**CARD NUMBER** 18 **EDITION** 21.03.2023

NUMBER OF CORES					
Total number	Core type				
of cores	Power cores	Protective conductor	Auxiliary cores		
n	n	n	n		
7	3	1	3		
10	3	1	6		

CABLE CONSTRUCTION					
Number of cores and cross-sectional area  Power cores+ protective conductor+ auxiliary cores	Maximum cable diameter	Approximated cable weight			
n x mm²	mm	kg/km			
3x35+16+3x2,5	46,0	2500			
3x50+25+3x4	51,8	3200			
3x70+35+3x4	58,8	4000			
3x35+16+6x2,5	46,0	2500			
3x50+25+6x2,5	51,8	3300			
3x50+25+6x4	51,8	3400			
3x70+35+6x4	58,8	4200			
3x95+35+6x4	64,0	5300			
3x150+50+6x4					
	Number of cores and cross-sectional area  Power cores+ protective conductor+ auxiliary cores  n x mm²  3x35+16+3x2,5  3x50+25+3x4  3x70+35+3x4  3x35+16+6x2,5  3x50+25+6x2,5  3x50+25+6x4  3x70+35+6x4  3x95+35+6x4	Number of cores and cross-sectional area         Maximum cable diameter           Power cores+ protective conductor+ auxiliary cores         mm           3x35+16+3x2,5         46,0           3x50+25+3x4         51,8           3x70+35+3x4         58,8           3x35+16+6x2,5         46,0           3x50+25+6x2,5         51,8           3x50+25+6x4         51,8           3x70+35+6x4         58,8           3x95+35+6x4         64,0			

<sup>\*</sup> cross-sectional area of protective conductor is based on total cross-sectional area of protective conductor and shields



PARAMETERS					
Nominal cross- section of the power conductor	Highest core resistance at 20 °C	Current carrying capacity at ambient temperature at 25 °C			
mm²	Ω/km	Α			
35	0,565	187			
50	0,393	233			
70	0,277	288			
95	0,210	345			