



## CERTIFICATE OF CONFORMITY IK CZ - 051/2019

Name and address of certificate holder: **Technokabel Spółka Akcyjna  
ul. Nasielska 55; 04-343 Warszawa**

Name and address of the manufacturer: **Technokabel Spółka Akcyjna  
ul. Wiatraczna 28; 06-550 Szreńsk k/Mławy**

Name of the product: **Halogen-free cables for rail vehicles**

Type/variety	Cable name	Standard related to cable geometry	Średnica Ø, mm
	<b>TECHRAY 4 GKW-AX 1,8/3 kV 1,5mm<sup>2</sup>+240mm<sup>2</sup></b>	<b>PN-EN 50264-3-1:2008 DT 200/R/17</b>	<b>3,6 + 27,0</b>

The product meets the requirements of:

**PN-EN 45545-2+A1:2015-12 Railway applications – Fire protection on railway vehicles – Part 2: Requirements for materials and elements in the scope of fire properties according to: R15 and R16 at the Hazard Level HL1, HL2 and HL3 for vehicles according to design category: N (standard vehicles), A (vehicles forming part of an automatic train having no emergency trained staff on board), D (double decked vehicles) and S (sleeping and couchette vehicles), which are in operation category no.: 1 - vehicles for operation in infrastructure in which they can be stopped with a minimum delay and can immediately reach a safe area, 2 - vehicles for operation on underground sections in tunnels and / or on structures raised above the terrain, with the possibility of side evacuation and in which there are rescue stations or stations that provide a safe place for passengers, accessible after a short driving time, 3 - vehicles for use on underground sections in tunnels and / or on structures raised above the terrain with the possibility of side evacuation and in which there are rescue stations or stations, which provide a safe place for passengers, accessible after a long driving time, 4 - vehicles for operation on underground sections, in tunnels and / or on structures raised above the surface of the terrain, without the possibility of side evacuation and in which there are rescue stations or stations that provide safe passenger seat, accessible after a short driving time.**

In accordance with the report of tests and evaluation report conducted by:

**Materials and Structure Laboratory – Railway Institute Warsaw, Poland  
Lapi Laboratorio Prevenzione Incendi S.p.A., Italy**

Test report, evaluation report:

**Test report No.IK.LKA105.A218/19 of 20.11.2019, Test report No. IK.LKA105.A219/19 of 20.11.2019  
Rapporto Di Prova No. 1996.1CI0110/19, Rapporto Di Prova No. 1997.1CI0110/19**

Scope of utility:

**The product is intended for rolling stock.**

The right to use the Certificate of Conformity from **29.11.2019 to 28.11.2022** is valid exclusively for the copies of products of the same parameters as specimen (specimens) subjected to scrutiny and complying with mentioned standard.

Certification according to Certification Program PCW-02

KIEROWNIK  
OŚRODKA JAKOŚCI I CERTYFIKACJI

*[Signature]*  
The Head of Quality and Certification  
Centre



**Warsaw, 29<sup>th</sup> of November 2019**

ZASTĘPCA DYREKTORA  
DS. INTEROPERACYJNOŚCI I DLEI

*[Signature]*  
Marek Pawlik

Director of  
Railway Institute