

# EUCA RAIL

Cables for Railway Infrastructure Projects

Product Range



20  
22



Kabelwerk

**EUPEN** AG  
cable

# Fire Safety Cables

for applications in tunnels and public buildings (underground railways, stations...)

## Halogen free, Fire retardant Power – and Control Cables:

Voltage	Standard	Examples	DoP - EN 50575
LV ≤ 1kV	DIN/VDE 0276-604	N2XH, N2XCH, (N)2XH RF (flex cond.)	B2 <sub>ca</sub> -s1a,d1,a1
	DIN VDE 0815	J-H(St)H...Bd, J-H(St)H...Bd BMK	C <sub>ca</sub> -s1,d1,a1
	IEC 60502-1	2XH, 2XSH, 2XS(F)H, 2XHBH, 2XR(AL)H	under consideration
	IEC 60502-1	A2XH	B2 <sub>ca</sub> -s1a,d2,a1
	IEC 60502-1	2XHRH, 2XHQH	B2 <sub>ca</sub> -s1a,d1,a1
	IEC 60228	Bare copper conductor	not applicable
	NBN HD 604 5-L	XGB	B2 <sub>ca</sub> -s1a,d1,a1
	NBN HD 604 5-L	XFGB	B2 <sub>ca</sub> -s1a,d2,a1
	Customer spec.	Feeder Cables EXAG, EAXG, ...	under consideration
	NEN K-42D	YMz1K, YMz1K flex, Z1O-YMz1Kas, Z1G-YMz1Kas	B2 <sub>ca</sub> -s1a,d1,a1
	EN 50525 series	H07Z1-R, H07Z1-K	B2 <sub>ca</sub> -s1a,d1,a1
	Manufacturer spec.	Li2XH(CuB)CH, FRECO-EMC	B2 <sub>ca</sub> -s1a,d2,a1
1 - 3kV		Feeder Cables (N)2XSH, (N)2XS(F)H, (N)2XCH, (N)A2XH	B2 <sub>ca</sub> -s1a,d1,a1
MV 3.6/6 - 20.8/36kV	DIN/VDE 0276-622	N2XSEH, N2XSH, (N)2XS(F)H, (N)2XS(FL)H	B2 <sub>ca</sub> -s1a,d1,a1
	DIN/VDE 0276-622	(N)A2XS(FL)H	C <sub>ca</sub> -s1,d2,a1
	NBN HD 620-10B	EXCGB, EXeCGB, EXeCeGB	B2 <sub>ca</sub> -s1a,d1,a1
	NBN HD 620-10B	EAXeCeGB	C <sub>ca</sub> -s1,d2,a1
	IEC 60502-2	2XSEH	B2 <sub>ca</sub> -s1a,d1,a1
	IEC 60502-2	2XSH, 2XSEHRH, 2XSHB(AL)H	under consideration
	Customer spec.	Feeder Cables	

## Fire resistant Power – and Control Cables:

Voltage	Standard	Examples	DoP - EN 50575
LV ≤ 1kV	DIN/VDE 0266	(N)HXH, (N)HXCH - FE180/E30-E90	not applicable
	DIN/VDE 0815	JE-H(St)H FE180/E30 - E90	
	IEC 60502-1	m2XH, m2XHRH, m2XHBH	
	NBN C 33-134	PYROBELCA® Rf 1h - Rf 1,5h	
		Pyrocontrol Power Rf 1h, Pyrocontrol Telecom Rf 1h	
	Customer spec.		

# Railway Signalling – and Communication Cables

for lineside- and tunnel applications

## Trackside applications

Standard	Examples	DoP - EN 50575	
DB AG 416...	Halogen free	A-2Y2Yv, A-2Y(L)2Yv, A-2Y2YB2Y, A-2Y(L)2YB2Y AJ-2Y2YDB2Y, AJ-2Y(L)2YDB2Y	not applicable
DB AG 416...	Halogen free	A-2YHv, A-2Y(L)HHv, A-2Y(L)HBH	B2 <sub>ca</sub> -s1a,d1,a1
	Halogen free	A-2YHBH	B2 <sub>ca</sub> -s1a,d2,a1
	Halogen free	AJ-2YHDBH, AJ-2Y(L)HDBH	under consideration
	Dry filled	A-2YTFHv, A-2YTF(L)HHv, A-2YTF(L)HBH	B2 <sub>ca</sub> -s1a,d1,a1
	Dry filled	A-2YTFHBH	B2 <sub>ca</sub> -s1a,d2,a1
DIN/VDE 0815	Halogen free	J-H(St)H	C <sub>ca</sub> -s1,d1,a1
Infrabel S21	Fire retardant	SXCAV, VS, VST	not applicable
	Halogen free	SXCAG	B2 <sub>ca</sub> -s1a,d2,a1
SNCF CT445	Fire retardant	ZPAU, ZPFU, ZPGU, ZC03	not applicable
	Halogen free	ZPAU-SH	under consideration
Loose tube Fiber Optic	Outdoor	A-DQ(ZN)2Y, A-DQ(ZN)B2Y, A-DQ(ZN)(SR)2Y	not applicable
	Halogen free	U-DQ(ZN)BH	D <sub>ca</sub> -s2,d1,a1
Customer spec.			

# Power - and Control Cables

for general applications

PVC or PE sheathed Power – and Control Cables:



Voltage	Standard	Examples	DoP - EN 50575
LV ≤ 3kV	IEC 60502-1	2XY	C <sub>ca</sub> -s3,d2,a3
	IEC 60502-1	2XSY, 2XCY, 2XYBY, 2XYRY, 2XR(AL)Y	under consideration
	DIN/VDE 0276-603	N2XY, N2XCY	E <sub>ca</sub>
	NBN HD 604 / -603	XVB, XFVB, EXAVB, SXAVB	C <sub>ca</sub> -s3,d2,a3
	NBN HD 604 / -603	EXVB, EAXeVB	E <sub>ca</sub>
	Customer spec.	Feeder Cables, EXAW, ...	F <sub>ca</sub>
	Manufacturer spec.	Li2XY(Cub)CY, FRECO-EMC	C <sub>ca</sub> -s3,d2,a3
	NEN K-42D	YMvK, VO-YMvKas, VG-YMvKas	D <sub>ca</sub> -s2,d2,a3
	EN 50525 series	H07V-R, H05V-K, H07V-K, H07RN-F	E <sub>ca</sub>
	EN 50525 series	H05BQ-F	
	VDE 0250-602	NSGAFÖU 1,8/3 kV	under consideration
MV 3,6/6 - 20,8/36kV	IEC 60502-2	2XSY, 2XSYR(AL)Y, 2XSYB(AL)Y, 2XSEY, 2XSEYRY, 2XSEY-BY	F <sub>ca</sub>
	DIN/VDE 0276-620	N2XS2Y, N2XS(F)2Y, ,N2XS(FL)2Y, N2XSE2Y, NA2XS2Y, NA2XS(F)2Y, NA2XS(FL)2Y, N2XSEY	
	NBN HD 620-10B	EXeCVB, EXeCeWB, EAXeCWB	
	Customer spec.	Feeder Cables	

# Radiating - and Coaxial Cables

for radio transmission in rail and metro tunnels and in-train communication

## EUCARAY® Radiating Cables

Tuned for Tetra, GSM-R, LTE, 5G and WLAN applications  
Broadband up to 6.5 GHz  
Solution for MiMo applications  
W-LAN 2.4 GHz and 5.7 GHz optimised

## Coaxial Feeder Cables

PE jacket for outdoor, Low smoke,  
Halogen Free and Fire retardant for indoor applications.

Hangers and Accessories for Cable installation

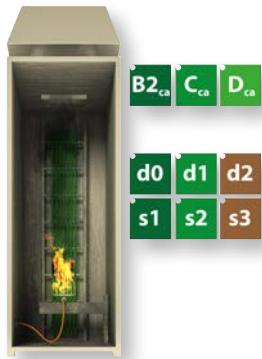
DoP according EN 50575

# Construction Products Regulation (CPR)

**EN 50575 = AVCP by Third Party (audit & control) + tests acc. the following standards**  
+ DoP + CE - marking



EN 60332-1-2 - **vertical flame propagation** – describes the testing method for  $E_{ca}$  and  $F_{ca}$  classification and is mandatory as well for all higher classifications,  $D_{ca}$  up to  $B2_{ca}$



EN 50399 describes the testing method for **heat release and flame spread**  $B2_{ca}$  down to  $D_{ca}$  classification and the testing methods for the additional criteria with regards to flaming droplets ( $d0 - d2$ ) and smoke production ( $s1 - s3$ )



EN 60754-2 describes the testing method for additional criteria with regards to **acidity**  $a1 - a3$  by measuring pH & conductivity



EN 61034 describes the testing method for additional criteria with regards to **smoke**  $s1a$  and  $s1b$  (optional)

Malmedyer Str. 9 - 4700 EUPEN - BELGIUM

Tel.: +32(0)87 59 70 00  
ISO Certified Company

<http://www.eupen.com>

e-mail: major\_projects@eupen.com