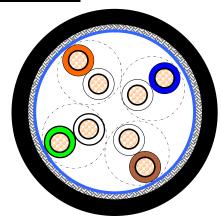


TECHNICAL DATASHEET	code	BE43800
	version	2
	Date	2011-09-14
4 PR CAT5E SF/UTP 26AWG X-FRNC Railcable	page	1/3

APPLICATION:

For use in railway applications such as rolling stock, buses or other vehicles, cable meets the requirements of the relevant parts of international railway standards like DIN 5510-2, EN50153 EN50155, EN50305 and CEN/TS 45545

CABLE CONSTRUCTION



Conductor:

Material Stranded PACW

Construction 19X0.1 mm (26 AWG)

Insulation:

Material Polyolefin (solid)

Diameter 1.0 mm +/- 0.05

Pair

Pair 2 twisted insulated conductors

Number of pairs 4, all twisted together Left hand lay.

Colour code pair 1 White / Blue & Blue

Colour code pair 2 White / Orange & Orange
Colour code pair 3 White / Green & Green
Colour code pair 4 White / Brown & Brown

Tape

Material Polyester tape

Foil-Screen

Material Aluminium/polyester

Braided Screen:

Material tinned copper wires

Coverage >85%

Sheath:

Material X-FRNC

Diameter 6.7 +/- 0.2 mm

wallthickness 0.9 mm
Colour Black



TECHNICAL DATASHEET	code	BE43800
	version	2
	Date	2011-09-14
4 PR CAT5E SF/UTP 26AWG X-FRNC Railcable	page	2/3

ELECTRICAL CHARACTERISTICS (ACC. ISO/IEC 11801 CAT D)

Low frequency and D.C. (at 20°C)	Specification	Unit	
D.C. resistance conductor	< 14.5	Ω/100m	
Resistance unbalance: within a pair / between pairs	< 2 / < 4	%	
D.C. insulation resistance: cond. – cond.	≥ 5000	MΩ.km	
Dielectric strength conductor-conductor and conductor-screen (2 sec.)	2.5	kV DC	
Mutual capacitance	< 56	nF/km	
Capacitance unbalance pair to ground	< 1600	pF/km	
Nominal velocity of propagation (for information only)	> 0.6	С	
Delay skew (differential delay)	≤ 40	ns/100m	
Transfer impedance according IEC 61156-5	Grade 1		
Coupling attenuation according IEC 61156-5	Type I		

High freque	High frequency (at 20°), reference standard: ISO/IEC61156-5								
TYPE	1*	4	10	16	20	31.25	62.5	100	MHz
Attenuation	3.2	6.0	9.5	12.1	13.5	17.1	24.8	33.0	dB/100m
NEXT	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3	dB/100m
PS NEXT	62.3	53.3	47.3	44.2	42.8	39.9	35.4	32.3	dB/100m
ACR	62.1	50.3	40.8	35.2	32.2	25.8	13.6	3.3	dB/100m
PS ACR	59.1	47.3	37.8	32.2	29.2	22.8	10.6	0.3	dB/100m
ACR-F	64.0	52.0	44.0	39.9	38.0	34.1	28.1	24.0	dB/100m
PS ACR-F	61.0	49.0	41.0	36.9	35.0	31.5	25.1	21.0	dB/100m
Return Loss	20.0	23.0	25.0	25.0	25.0	23.3	20.7	19.0	dB/100m
TCI level 1	40.0	34.0	30.0	28.0	27.0	25.1	22.0	20.0	dB/100m
EL TCTL	35.0	23.0	15.0	10.9	9.0	5.5			dB/100m
Impedance upper limit	122.2	115.2	111.9	111.9	111.9	114.6	120.2	125.3	Ω
Impedance lower limit	81.8	86.8	89.4	89.4	89.4	87.2	83.2	79.8	Ω
Propagation delay	570	552	545	543	540	539	538	537	ns/100m

NOTE: Limits below 4MHz are for information only



TECHNICAL DATASHEET	code	BE43800
	version	2
	Date	2011-09-14
4 PR CAT5E SF/UTP 26AWG X-FRNC Railcable	page	3/3

Mechanical and physical characteristics:

Fire protection Railway vehicles DIN 5510-2 protection level 1 to 4

Flame resistance according CEN/TS 45545 IEC 60332-1-2, EN50305 &

IEC60332-3-25 cat D

Oil resistance IEC 60811-2-1

Resistance against mineral oil EN 50306 par 4.8 1.5kV/1min.
Resistance against Fuel EN 50306 par 4.9 1.5kV/1min.

Resistance against acid and alkali EN 50306 par 4.10 1.5kV/1min.

Halogen content according to IEC 60754-1, EN 50267-1-2

HCL < 0.4%

Toxicity NF X70-100 CITc<0.7, EN/TS 45545 (Class R14 HL3)

Corrosivity of fire gases according to IEC 60754-2, EN 50267-2-2

Conductivity $\leq 10 \text{ us/mm}$

pH value ≥ 3.4

Smoke density according to DIN EN 61034-2, EN50268-2

T >70%

Temperature range installing

Temperature range operating

Temperature range storage

T >70%

Temperature range operating

T >70%

Temperature range operating

T >70%

Temperature range operating

T >70%

Temperature range installing

T >70%

Temperature range operating

T >70%

Temperature range operation range operation range operation range operation range operation range operati

Printlegend:

BELDEN BE43800 CAT5E ETHERNET RAILCABLE 4PR AWG26/19 SF/UTP X-FRNC/LSNH YYWW + METERMARKING".

(YYWW = year an week of production)



Belden CDT believes this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.