

Technical datasheet

BETrans® 4 GWK-ENX EN 50264-3-1 1800 V M

Fire performance for rolling stock

vertical flame propagation for a single insulated wire or cable
 vertical flame spread of bunched wires or cables > 6 < 12 mm
 vertical flame spread of bunched wires or cables < 6 mm
 smoke density
 toxicity of smoke
 absence of halogens

 corrosivity of gases

EN 45545-2

EN 60332-1-2
 EN 60332-3-25
 EN 50305
 EN 61034-2
 EN 50305
 EN 50267-2-1
 EN 60684-2
 EN 50267-2-2
 EN 50267-2-2

hazard level HL1 - HL3

carbonisation > 50 and ≤ 540 mm
 carbonisation < 2.5 m
 carbonisation < 1.5 m
 transmittance > 70 %
 ITC ≤ 3
 HCl and HBr < 0.5 %
 HF < 0.1 %
 pH > 4.3
 conductivity < 10 µS / mm

Fire performance for rolling stock

vertical flame propagation for a single insulated wire or cable
 vertical flame spread of bunched wires or cables > 6 < 12 mm
 vertical flame spread of bunched wires or cables < 6 mm
 smoke density
 toxicity of smoke
 absence of halogens

 corrosivity of gases

EN 50264-1

EN 60332-1-2
 EN 60332-3-25
 EN 50305
 EN 61034-2
 EN 50305
 EN 50267-2-1
 EN 60684-2
 EN 50267-2-2
 EN 50267-2-2

carbonisation > 50 and ≤ 540 mm
 carbonisation < 2.5 m
 carbonisation < 1.5 m
 transmittance > 70%
 ITC ≤ 6
 HCl and HBr < 0.5 %
 HF < 0.1 %
 pH > 4.3
 conductivity < 10 µS / mm

Fire performance for rolling stock

vertical flame propagation for bunched wires or cables
 smoke release

NFPA130

FT 4/IEEE 1202
 UL 1685

carbonisation ≤ 1.5 m
 peak smoke rate ≤ 0.25 m² / s
 total smoke released ≤ 95 m²

Material properties

resistance to ozone

 resistance to cold
 resistance to oil
 resistance to fuel
 resistance to acid
 resistance to alkali
 low fire load
 limiting oxygen index (LOI)

 resistance to UV

EN 50264-3-1

EN 50264-3-1

 EN 60811-504
 EN 60811-404
 EN 60811-404
 EN 60811-404
 EN 60811-404
 DIN 51900
 ISO 4589-2
 ASTM D 2863
 EN 50618

hazard level M

72 h / 40 °C, method B
 volume concentration 200x10⁻⁶
 - 40 °C
 72 h / 100 °C, IRM 902
 168 h / 70 °C, IRM 903
 168 h / 23 °C, n-Oxalic acid
 168 h / 23 °C, n-NaOH

 > 30 %
 > 30 %
 > 2000 h

Technical prescriptions concerning the burning behaviour

resistance to flame propagation

UN/ECE-R 118

ISO 6722-1

combustion duration ≤ 70 sec.
 length of unburned area ≥ 50 mm

Approvals

Swiss Federal Railways

The national standards as BS 6853, DIN 5510-2, PN-K-02511, UNI CEI 11170 had been withdrawn and replaced by EN 45545-2.

All information regarding properties, technical data, etc. are without obligation. Dimensions and weights are reference values. All information can be changed at any time and without prior notice.