

David SOYEZ

De: Eric Jaillant <e.jaillant@urmet-captiv.fr>
Envoyé: mercredi 21 novembre 2012 16:59
À: David SOYEZ
Objet: TR: Fiche technique BIBUS / Resistance feu et eau
Pièces jointes: 690104-00-C.pdf; dielectric-table.pdf; IEC 60332-1.jpg

-----Message d'origine-----

De : Olivier JOLY - elbaC Cable [<mailto:olivier.joly@elbac.fr>] Envoyé : jeudi 3 mars 2011 10:35 À : Eric JAILLANT
Objet : Fiche technique BIBUS / Resistance feu et eau

Bonjour Monsieur JAILLANT,

Suite à votre demande, la fiche technique du BIBUS mentionne que la gaine PVC est IEC 332-1 soit l'équivalence de la résistance au feu classe 2 selon NF C
32-070 2.1. L'ensemble du cable a passé le test de combustion vertical C2 (cf photo jointe).

Pour la résistance à l'eau est se fait au niveau du gainage des conducteurs qui est en PEHD (polyéthylène haute densité) intrinseculement très résistant à l'eau (cf tableau des matière plastique joint).

Espérant avoir répondu aux demandes de votre client.

Cordialement.

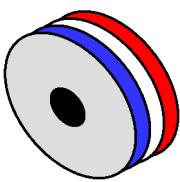
Olivier JOLY

Ce message entrant est certifié sans virus connu.

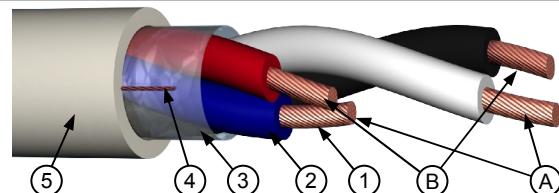
Analyse effectuée par AVG - www.avg.fr

Version: 8.5.449 / Base de données virale: 271.1.1/3474 - Date: 03/02/11

19:34:00

**elbaC Cable**

ZAC sous le Beer - RD 836
F-27730 BUEIL
Tel : +33 (0)2 32 62 00 92
Fax : +33 (0)2 76 01 31 80
www.elbac.fr / info@elbac.fr

**Construction**

| Group | (A) | (B) |
|-------|-----|-----|
|-------|-----|-----|

Inner conductor

| | | |
|----------|---------------------------|---------------------------|
| Material | Annealed copper | |
| Diameter | 24 × Ø 0.20 ± 0.005 mm | 32 × Ø 0.20 ± 0.005 mm |
| Area | 0.75mm ² | 1.00mm ² |

Insulation

| | | |
|----------|-----------|-----------|
| Material | PEHD | PEHD |
| Diameter | Ø 1.90 mm | Ø 1.90 mm |

Assembly

| | | |
|--------------|-----------------|--|
| Construction | 1 quad | |
| Colors | See color table | |
| Lay length | 45 mm | |

Mylar spiral

| | | |
|----------|------|--|
| Material | PET | |
| Coverage | 105% | |

Rip cord

| | | |
|----------|--------------|--|
| Material | Textile 200D | |
|----------|--------------|--|

Sheath

| | | |
|----------|----------------------------------------------------------|-----|
| Material | PVC 70P Ivory RAL 9001 Flame retardant IEC 332-1 (C2) | (5) |
| Diameter | Ø 7.0 ± 0.20 mm | |

Mass

| | |
|------|-----------|
| Mass | To define |
|------|-----------|

Marking on sheath

| | |
|-----------------------------------------------------------------------------------------|------------------------------------------------|
| Printing with XXX quantity in meter still available per reel WW/YY : Week/Year | « URMET BIBUS VOP - 690104 -WW/YY - XXX m » |
|-----------------------------------------------------------------------------------------|------------------------------------------------|

| | |
|-----------------|-----------------|
| Color / Process | Black / Ink jet |
|-----------------|-----------------|

| | |
|------|-----|
| Step | 1 m |
|------|-----|

Meet Standards

| |
|-------------------------|
| RoHS European directive |
|-------------------------|

Electrical characteristics

| | |
|-------------------------------------|-------------|
| Max. conductor DC resistance | 24 Ω/km |
| Rated voltage | 300 V |
| Insulation resistance 20°C | > 500 MΩ.km |

Electrical characteristics

| | |
|--------------------------------------|-------------|
| Impedance | 100 Ω |
| Capa. conductors/cond. (1KHz) | < 65 pF/m |
| Capa. cond./screen (1KHz) | < 130 pF/m |
| Max. conductor DC resistance | 18 Ω/km |
| Propagation velocity ratio | 66% |
| Rated voltage | 300 V |
| Insulation resistance 20°C | > 500 MΩ.km |

Color table

| Pairs | Colors | |
|-------|----------------|----------------|
| | A | B |
| A | White RAL 9003 | Blue RAL 5005 |
| B | Red RAL 3020 | Black RAL 9005 |

**Thermal characteristics**

| | |
|--------------------------|---------------|
| Rated Temperature | - 15 to 80 °C |
|--------------------------|---------------|

Mechanical characteristics

| | |
|-------------------------------|-------------------|
| Static bending radius | r = 6 x Ø sheath |
| Dynamic bending radius | r = 12 x Ø sheath |

Packaging

| | |
|-----|------------------------|
| -G1 | : 100m / Coil |
| -R2 | : 200m / Easy Reel Box |
| -W5 | : 500m / Carton drum |

Notes

if flame over
this point
test fail

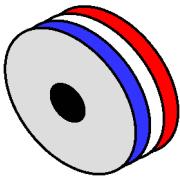
5CM

21CM

11CM



DIELECTRIC



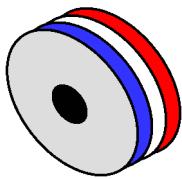
elbaC Cable

Chemin du Virolet – Rowenta
F-27200 VERNON
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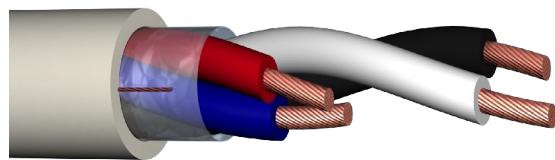
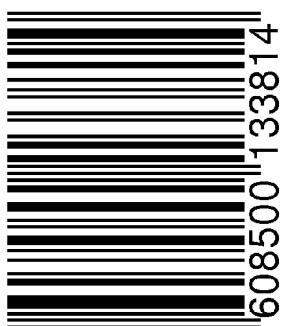
Dielectrical Material / How to choose

Matières dielectrique / Aide au choix

| MATERIAL / MATIERE | | | | | | | | | | | | |
|-------------------------------------------------|--------------------------------------|-------|-------|-------------------|--------------------|------------------|---------------|-------|-------|-------------------|----------|----------|
| Properties / Propriétés | | PVC | PVC | PE : POLYETHYLENE | PP : POLYPROPYLENE | PUR POLYURETHANE | PA POLYAMIDE | FEP | PTFE | RUBBER CAOUTCHOUC | NEOPRENE | SILICONE |
| Cost Coût | Physical Physique | PVC | PVC-C | LSZH | LDPE FOAMED PEHD | SOLID MOUSSE | FOAMED MOUSSE | | | | | |
| Raw material competitiveness | Competitivité de la matière première | ++ | + | = | +++ | +++ | ++ | = | - | = | = | = |
| Transformation competitiveness | Transformisation compétitiveness | ++ | ++ | ++ | ++ | +++ | + | = | - | = | = | = |
| Competitivité de la transformation | Mass [Kg/m ³] | 1400 | 1550 | 930 | 390 | 950 | 920 | 420 | 1200 | 1130 | 2150 | 2160 |
| Abrasion resistance | Résistance à l'abrasion | = | = | + | = | ++ | = | +++ | ++ | ++ | ++ | ++ |
| Weather, Sun resistance | Résistance climatique et solaire | +/-++ | +/-++ | + | ++ | ++ | ++ | + | ++ | ++ | ++ | ++ |
| Nuclear Radiation Resistance | Résistance au rayonnement nucléaire | = | = | = | +/-++ | + | +/-++ | = | = | =/+ | = | =/+ |
| Underground Burial | Applitude à l'enfouissement | = | = | - | + | ++ | ++ | + | - | ++ | ++ | ++ |
| Normal Low Temperature | Température minimum d'emploi | -20 | -20 | -40 | -40 | -60 | -100 | -40 | -40 | -40 | -190 | -80 |
| Normal High Temperature | Température maximum d'emploi | 80 | 105 | 80 | 70 | 80 | 90 | 105 | 105 | 115 | 250 | 150 |
| Low-Temperature Flexibility à basse température | Flexibilité à basse température | = | = | ++ | ++ | ++ | - | - | ++ | ++ | ++ | =/+ |
| Flame Resistance | Résistance à la flamme | ++ | ++ | ++ | - | - | - | - | - | ++ | ++ | - |
| Dielectrical constant ϵ_r | Dielectrical constant ϵ_r | 3,3 | 3,4 | 2,8 | 2,4 | 1,45 | 2,4 | 2,3 | 1,45 | 3,6 | 2,1 | 2 |
| Constante diélectrique | Electrical strength [kV/mm] | 35 | 45 | 60 | 80 | 90 | 50 | 50 | 25 | 14 | 25 | 49 |
| Rigidité diélectrique | Electrical strength | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ |
| Acide | Electrolyte | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ |
| Alkali Bases | Electrolyte | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ | +/-++ |
| Alcohol Alcohol | Electrolyte | -/= | -/= | = | ++ | ++ | ++ | ++ | = | -/= | -/+ | -/+ |
| Aliphatic Hydrocarbons | Hydrocarbures aliphatiques | - | - | + | +/-++ | +/-++ | +/-++ | -/= | - | = | ++ | - |
| Aromatic Hydrocarbons | Hydrocarbure aromatiques | -/= | -/= | - | - | - | - | -/= | - | = | -/= | -/= |
| Hydrocarbure organiques | Hydrocarbure organiques | -/= | -/= | - | - | - | - | - | - | = | - | - |
| Halogenated Hydrocarbon | Hydrocarbure halogénés | - | - | + | + | + | + | - | - | ++ | ++ | - |
| Oil Huiles | Oil Huiles | = | = | + | +/-++ | +/-++ | +/-++ | = | = | ++ | ++ | ++ |
| Oxidation | Oxydation | ++ | ++ | + | ++ | ++ | ++ | ++ | ++ | ++ | ++ | ++ |
| Ozone | Ozone | ++ | ++ | ++ | ++ | ++ | ++ | ++ | ++ | ++ | - | ++ |
| Water Eau | Water Eau | =/+ | =/+ | = | ++ | ++ | ++ | ++ | ++ | -/+ | ++ | ++ |

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**Label**

3 608500 133814

690104-G1

urmet

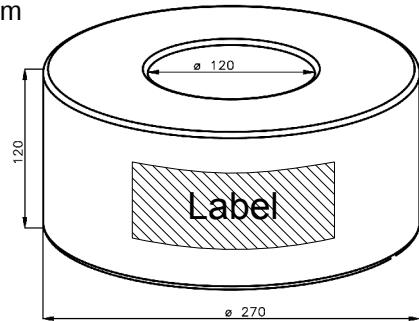
Désignation : CABLE BIBUS VOP

Quantité : 100m

Réf : 1074 / 90

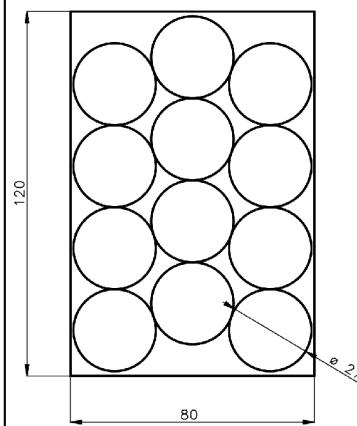
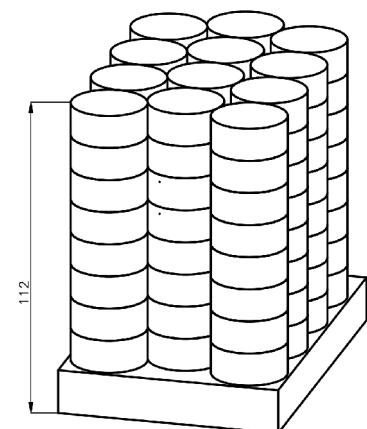
Packaging

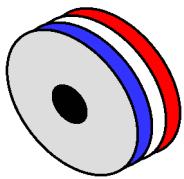
100m coil under skrunked PE
Ø 270 x 120 mm

**Pallet**

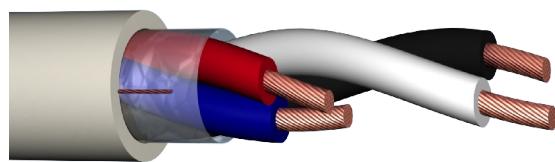
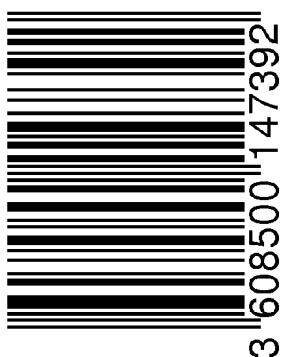
Length : 120 cm
Width : 80 cm
Height : up to 140 cm

Quantity per pallet :
8 layers of 4 x 3
= 96 coils = 9.6km

**Notes**

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**Label**

3 608500 147392

690104-W5

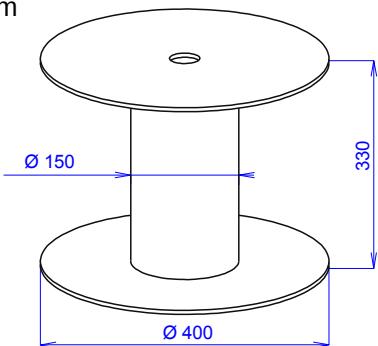
URMET

Désignation : CABLE BIBUS VOP

Quantité : 500m

Réf : **1074 / 95****Packaging**

Wooden drum of 500m
Ø 400 × 305 mm

**Pallet**

Length : 120 cm
Width : 80 cm
Height : up to 140 cm

Quantity per pallet : 3 layers of 6 drums = 9 km

Notes