



# Fireproof cables for use in buildings

in accordance with the  
EU Construction Products Regulation



## On the safe side with LEONI

The Construction Products Regulation was introduced for the purpose of saving lives, inhibiting fires and minimising consequential damages.

Since 1 July 2016, all cables permanently installed in the building are also subject to the Construction Products Regulation.

The regulation prescribes a new classification of cable according to different criteria that has been in effect since then. Based on these criteria, organisations like ZVEI have issued recommendations for the cables and fire classifications to be used.

For instance, the installation of cables in fire class B2<sub>ca</sub> s1 d1 a1 is recommended for escape routes and practically all special structures such as administrative buildings, hotels, hospital and schools.

LEONIs' FiberConnect® product portfolio has been classified E<sub>ca</sub>, D<sub>ca</sub> bzw. C<sub>ca</sub> for the wiring of buildings depending on the cable type.

In addition to that LEONI can already offer select products from the FiberConnect® brand in fire class B2<sub>ca</sub> s1 d1 a1.

For a few months the Business Unit Fiber Optics strictly manufactures the relevant cables in accordance with the new Construction Products Regulation. Consequently, we try to ensure that your stocked goods are also changed over to products in compliance with the regulation by 1 July 2017.

We reserve the right to make technical modifications.  
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# LEONI

# Fire classes and the according product portfolio

The European Union did not break down yet the legal requirements for new building projects, based on the new fire classes of the Construction Products Regulation.

In the absence of binding legal requirements organisations like ZVEI (German Electrical and Electronic Manufacturers' Association) prepared a recommendation, combining the new fire classes with the additional properties and assigning these to the safety requirements of the building.

## Recommendation of the ZVEI for the fire classes to be applied for cable under the Construction Products Regulation

| Fire classes                       |                                 |                  |                              | Safety requirement in the building |
|------------------------------------|---------------------------------|------------------|------------------------------|------------------------------------|
| Flame propagation heat development | Smoke production/ smoke density | Flaming droplets | Acid production/ corrosivity |                                    |
| A <sub>ca</sub>                    | –                               | –                | –                            | Very high                          |
| B1 <sub>ca</sub>                   | –                               | –                | –                            | Very high                          |
| B2 <sub>ca</sub>                   | s1                              | d1               | a1                           | Very high                          |
| C <sub>ca</sub>                    | s1                              | d1               | a1                           | High                               |
| D <sub>ca</sub>                    | s2                              | d2               | a1                           | Moderate                           |
| E <sub>ca</sub>                    | –                               | –                | –                            | Low                                |
| F <sub>ca</sub>                    | –                               | –                | –                            | None                               |

The Business Unit Fiber Optics offers a wide range of cable types for the different safety requirements in buildings

Below you will find a selection of the most important cable types and their declared fire properties

| Class            | Smoke                              | Acidity | Droplets | Type                          | Composition   | No. of fibers | LEONI order no. |
|------------------|------------------------------------|---------|----------|-------------------------------|---|---------------|-----------------|
| B2 <sub>ca</sub> | S1A                                | A1      | D0       | I-B(ZN)BH NN JF               | Dry core multi-fiber loose tube cable                     | 2-24          | 84111           |
|                  | S1A                                | A1      | D0       | I-B(ZN)BH NNXMM 1,6 2500 N JF | Twisted dry core multi-fiber loose tube cable             | 12-72         | 84110           |
| C <sub>ca</sub>  | S1A                                | A1      | D0       | I-B(ZN)BH NNXMM 1,6 JF        | Twisted dry core multi-fiber loose tube cable             | 12-144        | 84080           |
|                  | S1A                                | A1      | D1       | I-F(ZN)H NN UV                | Multifiber connectors cable                               | 8-24          | 84171           |
| D <sub>ca</sub>  | S2                                 | A2      | D2       | I-F(ZN)H(ZN)H NN              | Multifiber connectors cable with double cladding          | 8-24          | 84072           |
|                  | S2                                 | A1      | D2       | I-F(ZN)HH NNXMM 3,0           | Twisted multifiber connectors cable                       | 16-144        | 84021           |
|                  | S2                                 | A2      | D2       | I-V(ZN)H NN STB900            | Mini breakout cable                                       | 4-24          | 84026           |
|                  | S2                                 | A2      | D2       | I-V(ZN)HH 2X 1F STB900 2,1    | Breakout cable flat                                       | 2             | 84017           |
|                  | S2                                 | A1      | D2       | U-D(ZN)BH NN FS ZB            | Multi-fiber loose tube cable                              | 2-24          | 84040           |
|                  | S2                                 | A1      | D2       | U-DQ(ZN)BH NN 1750 N          | Multi-fiber loose tube cable                              | 2-24          | 84025           |
|                  | S2                                 | A1      | D2       | U-DQ(ZN)H(SR)H NN             | Multi-fiber loose tube cable with corrugated steel jacket | 2-24          | 84030           |
|                  | S2                                 | A1      | D2       | U-DQ(ZN)H(SR)H NN FS UV       | Multi-fiber loose tube cable with corrugated steel jacket | 2-24          | 84047           |
| E <sub>ca</sub>  | NPD<br>(No Performance Determined) |         |          | I-V(ZN)HH NN STB900 2,1       | Breakout cable  | 2-12          | 84013           |
|                  |                                    |         |          | U-DQ(ZN)BH NNXMM 6000 N       | Twisted multi-fiber loose tube cable                      | 2-144         | 84033           |
|                  |                                    |         |          | U-DQ(ZN)BH NNXMM 4000 N       | Twisted multi-fiber loose tube cable                      | 2-144         | 84116           |

Classification of further cable types on request.