Detailed Cable Information

Dear Valued Customer,

the more information we can assess about your measurement task the more precisely we will be able to measure the resistivity of your cable. All your information will help us to improve our measurements and allow us to give you the best possible and customer specific support.

Cable Production

Date: ……..

Product identification: ……

Your identification of sample: ……

Cable type:

Material:
Example

Abbreviation (e.g. according EN) Cu-ETP	Material code (e.g. according EN) CR004A	Abbreviation (e.g. according DIN) E-Cu58	Material code (e.g. according DIN) 2.0065	Electrical conductivity at 20°C (κ) [m/Ωmm^2] (e.g. >58)	Thermal conductivity at 20°C (λ) [W/m*K] (e.g. >394)	Coefficient of linear thermal expansion (α) 10^{-6}/K (e.g. 17,7)

Your material:

……..

For aluminium:

Type of alloy: ……..

Percentage of aluminium: ……

Additional notes:

……..

Standards:

DIN EN 60228 ◯ Yes ◯ No

DIN EN 50182 ◯ Yes ◯ No

Other: ……..

……..

burster

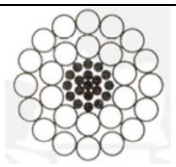
Structure Example	

Nominal cross-section [mm^2] (e.g. 25)	Actual cross-section [mm^2] (e.g. 24.24)	Structure (e.g. 7*2.1)	Diameter [mm] (e.g. 6.3)	Average weight [kg/km] (e.g. 65.7)	Calculated tensile strength [kN] (e.g. 4.24)	Electrical resistance [Ω/km] (e.g. 1.172)

Your structure:

……..

For aluminium with steel core

Structure Example	

Nominal cross-section [mm^2]	Number of steel wires [pcs]	Diameter of steel wires [mm]	Number of Alu wires [pcs]	Diameter of Alu wires [mm]	Proportion of cross-sections Al/Ac	Outer diameter [mm]	Calculated weight [kg/km]	Calculated tensile strength [kN]	Electrical resistance at 20°C [Ω/km]
16/2.5	1	1.80	6	1.80	6	5.40	62	5.91	1.862

Your structure:

……

Expected electrical resistance of the sample: ……..……

Degree of filling: ……..

Compressed: ◯ Yes ◯ No

Steel core: ◯ Yes ◯ No

Optical fibres: ◯ Yes ◯ No

Filling material and/or lubricant: ……

Toxic: ◯ Yes ◯ No

Additional notes:

……

Inner Insulation

Type: ……

Thickness: ……

Description: ……..……

……

Outer Insulation

Type: ……..

Thickness: ……

Description: ……..

……

Intended Usage

Description:

……

……

……

……

Material Characteristics

Modulus of elasticity: ……

Temperature coefficient (ppm/°C): ……

Additional notes: ……

Additional Information:

If there is product information or datasheets of this type of cable available, about its filaments, its raw material or the insulation, please add them.

…….. ……..

Date Signature

Photo cable cross-section

Photo cable symmetry axis

How to prepare the cable sample before sending in

- The sample length needed for measurement is 4 meters (13ft).
- The cable can be damaged during the measurement process, therefore please dispatch two samples of the same cable.
- Before cutting off the samples, several cable straps should be placed along its axis, specifically near its ends, to prevent it from losing its form.
- Draw a straight line on the cable, in such a way that we can restore the original twist during our measurement. Mark it on a length of 1 m (3 ft 3.37 in) in the centre of the cable before cutting it off. For example you can make light cuts on the surface as markers.
- Take a picture of the cable cross-section (*.jpg).
- During transport the cable must not be bent, but kept in a straight form in a plastic tube. Please label or mark it for identification.
- Depending on the sample its characteristics will change with time, for example it can oxidize. Therefore it should be dispatched immediately after removal. Additionally a heat shrink tube (without glue) or something else can be applied to protect the cable.
- The cable must not be welded or changed in any way after production.