## 7. HEAT SHRINKABLE TUBING PRODUCTS



Heat shrink joints



#### **Application**

Joints are intended for joining communication cables and pair control cables types TCEKE and TCEKFE (joints ZRPE) and TCEKEY and TCEKEE (joints ZRPEY) with copper conductors of 1,0mm core diameter.

## Marking

Identification marking consists of a letter symbol ZRPE (ZRPEY), followed by a number (numbers) indicating nominal number of pairs of joined cable.

Marking example:

ZRPE-1/2/3/4 is a heat shrink joint for cable TCEKE, or TCEKFE with nominal number of 1, 2, 3 or 4 pairs ZRPEY-7/12 is a heat shrink joint for cable TCEKEY with nominal number of 7, or 12 pairs

#### **Specifications**

Heat shrink joint ZRPE and ZRPEY kit components:

- -heat shrinkable tube for creating inner coating above connected cores
- -reinforced electrical insulation fiber board (one-side Al laminated)
- -aid components: aloxite emery tape and a cleaning tissue

Heat shrinkable insulation tube is covered by hot melt adhesive guaranteeing excellent sealed connection properties. Detailed description of assembly is described in a detailed installation instruction manual for joints ZRPE and ZRPEY.

Tubes are manufactured from cross-linked PE (properties displayed in the Tab. 1).

The Tab. 2 provides dimensions of particular joints

Heat shrink joints of type ZRPE are manufactured and supplied in compliance with VUKI corporate standards 22 009 and ZRPEY in compliance with VUKI corporate standards 22 010.



The data was prepared for informational purposes only, is to be a topic of revising if new knowledge and experience is available and does not contain any representations, legally binding declarations or guarantees. A liability of VUKI a.s. products for the correctness of the information contain herein is excluded and any specifications are subject to change without notice. In addition, any intellectual property rights remain within VUKI a.s. products and are reserved. VUKI a.s.

# 7. HEAT SHRINKABLE TUBING PRODUCTS



Tab. 1 Material properties (cross-linked PE)

		ZR	ZM
Tensile strength	[MPa]	min. 13	min. 15
Elongation at break	[%]	min. 350	min. 450
Shrink temperature	[.c]	150 - 200	150 - 200
Operating temperature - long-term - short-term	[,(]	100 150	100 150
Volume resistivity	[Ω.m]	10 <sup>13</sup>	1014
Dielectric strength	[kV/mm]	12	15

### Tab. 2 Dimensions of ZRPE and ZRPEY joints

ZRPE				ZRPEY					
Nominal number of pairs	Reinforced board		Tube			Reinforced board		Tube	
	L <sub>a</sub>	b	d <sub>1</sub> /d <sub>2</sub>	L	Nominal num- ber of pairs	La	b	$d_1/d_2$	L
	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]
1/2/3/4	220	140	25/8	400	1/2/3/4	220	140	25/8	600
6/7/12	220	220	37/14	420	7/12	220	220	37/14	600
16/24	290	320	47/19	480	16/24	290	320	47/19	720
30/48/61	330	320	70/27	520	30/48/61	330	320	65/27	800

- L Length of tube after shrinking
- La Length of reinforced electrical insulation fiber board measured at axial direction of joint
- B Width of reinforced electrical insulation fiber board
- d1- Expanded as supplied Ø d1 min
- d2 Fully recovered Ø d2 max



The data was prepared for informational purposes only, is to be a topic of revising if new knowledge and experience is available and does not contain any representations, legally binding declarations or guarantees. A liability of VUKI a.s. products for the correctness of the information contain herein is excluded and any specifications are subject to change without notice. In addition, any intellectual property rights remain within VUKI a.s. products and are reserved. VUKI a.s.