





# HVDW

A two-layer coextruded tube with a black outside semiconductive layer and a brick inside insulating layer used for jointing MV cables up to 36 kV

# Description

Two-layer EPDM extra heavy insulating wall polyethylene semi-conductive outer wall for use in medium voltage joints as an alternative to (CFX plus HSCT). One dual wall tube will replace multiple insulation tubes plus the semi-conductive tube reducing significantly installation time and installation skills required.

## **Main Features**

- Dual-wall XLPE/EPR heat shrinkable tube
- Reduces installation time
- Factory engineered system
- Reduces skill requirement of jointer
- Reduces the number of tubes in a MV joint kit
- Delivers consistent insulation thickness

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**Electrical Ratings** 

## **Technical Data**

Property	Test Method	Typical Performance (min/max)
Outside semi-conducting l Physical	ayer	
Density	IEC 684-2-4	1160 kg/m³
Tensile Strength	IEC 684-2-19	15/20.5 N/mm <sup>2</sup>
Ultimate Elongation	IEC 684-2-19	100/250 %
Electrical		
Resistivity		50/100 ohm-cm
Inside semi-conducting lay Physical	yer	
Density	IEC 684-2-4	1200/1300 kg/m <sup>3</sup>
Tensile Strength	IEC 684-2-19	5/6.5 N/mm <sup>2</sup>
Ultimate Elongation	IEC 684-2-19	250/660 %
Electrical		
Dielectric Strength	IEC 684-2	21/26 kV/mm
Volume Resistivity	IEC 684-2	1x10 <sup>15</sup> /7x10 <sup>15</sup> ohm-cm
Dual Wall Heat Shrinkable Physical	Tube	
Temperature at Continuous Duty		90/105°C
Shrinkage Temperature		>125°C
Shrinkage at Full Recovery		120/125 %

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Test Sequence	Test Voltage Highest Voltage for Cable Um (kV)			Results
	12	24	36	
A.C. Voltage Withstand 1 min	35	55	75	passed
Partial Discharge	12	24	36	≤10 pC
Impulse Voltage Withstand - 10 positive and 10 negative, 1.2/50 μs, between conductor and grounded screen	75	125	170	passed
Load Cycling - 3 cycles, 5 h heating, 3 h cooling - Conductor Temperature: XPLE cables 95°C paper insulated cables	15 75°C	30 70°C	45 65°C	passed
Partial Discharge	12	24	36	≤10 pC
Load Cycling - as above but 60 cycles	15	30	45	passed
Impulse Voltage Withstand - as above	75	125	170	passed
D.C. Voltage Withstand 30 min	35	55	75	passed
A.C. Voltage Withstand up to breakdow	'n			

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## Dimensions

	Recovered Dimensions				
Type of Tubes	Insulation EPDM	Semi-cond PE	Internal Diameter	Expanded	Length
	$\delta_1$ (mm)	$\delta_2$ (mm)	d (mm)	d <sub>1</sub> (mm)	(m)
HVDW 36/16	5.5	3.0	16.0	36.0	acc. buyer require- ments
HVDW 36/16S	8.5	4.0	16.0	36.0	
HVDW 45/20	8.5	4.0	20.0	45.0	
HVDW 56/25	12.0	4.0	25.0	56.0	



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