

# TECHNICAL DATA SHEET



## ULTRASTRESS VISIO

Potable water pressure pipes from PE100-RC

According to PAS 1075 Type 2  
Conforms to: EN 12201-2



Nordic Poly Mark

### PRODUCT DESCRIPTION

ULTRASTRESS VISIO pressure pipes for potable water are made from PE100-RC material featuring blue VISIO layer (10% of wall thickness). PE100-RC material pipes are resistant to long term expansion of cracks, scratching and point type loads. Point type loads are especially common during assembly of the pipelines using trenchless installation methods (for instance, as a result of friction against the stones that are present in the soil). In case of a point type load, tension and plastic deformations are produced in the material, which may cause cracks in the internal surface of the pipe. VISIO layer helps to identify the pipe damage that has occurred during installation. Max allowed depth of pipe damage equals to the thickness of VISIO layer, i.e. 10% of wall thickness. In the case of more significant damage to the pipe, uncovering the black inner layer, decision on further use of the pipe must be made.

Material: High density polyethylene (HDPE), type PE100-RC. With blue VISIO layer. Pipes are manufactured according to EN 12201, PAS 1075 specifications.

### APPLICATION AREA

ULTRASTRESS VISIO pipes are designed for potable water pressure systems, with recommended installation methods of pulling in the site in the old pipe according to EN 12889, EN 14457 and in the cases with the reuse of the old soil.

### PRODUCT DIMENSIONS

Pipe dimensions conform to EN 12201-2 specifications. Pipe nominal pressure according to EN 12201-2 (with C=1,25 at temperature 20 °C) PN10 bar for SDR 17 pipe and PN16 for SDR 11 pipe.

#### PE100-RC

According to PAS 1075:  
Type 2

#### Open product

Pipe dimensions		Length	Pipe dimensions		Length
d <sub>n</sub> x e <sub>n</sub> , mm		L, m	d <sub>n</sub> x e <sub>n</sub> , mm		L, m
SDR 17	SDR 11		SDR 17	SDR 11	
-	20 x 2,0	100-2000	180 x 10,7	180 x 16,4	12 /13,4 /20
25 x 1,8	25 x 2,3	100-2000	200 x 11,9	200 x 18,2	12 /13,4 /20
32 x 2,0	32 x 3,0	100-2000	225 x 13,4	225 x 20,5	12 /13,4 /20
40 x 2,4	40 x 3,7	100-1000	250 x 14,8	250 x 22,7	12 /13,4 /20
50 x 3,0	50 x 4,6	100-800	280 x 16,6	280 x 25,4	12 /13,4 /20
63 x 3,8	63 x 5,8	100-600	315 x 18,7	315 x 28,6	12 /13,4 /20
75 x 4,5	75 x 6,8	100-300	355 x 21,1	355 x 32,2	12 /13,4 /20
90 x 5,4	90 x 8,2	100-200	400 x 23,7	400 x 36,3	12 /13,4 /20
110 x 6,6	110 x 10,0	12 /13,4 /20 /50 /100	450 x 26,7	450 x 40,9	12 /13,4 /20
125 x 7,4	125 x 11,4	12 /13,4 /20	500 x 29,7	500 x 45,4	12 /13,4 /20
140 x 8,3	140 x 12,7	12 /13,4 /20	560 x 33,2	560 x 50,8	12 /13,4 /20
160 x 9,5	160 x 14,6	12 /13,4 /20	630 x 37,4	630 x 57,2	12 /13,4 /20

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### PRODUCT PARAMETERS

Parameter	Value	Test method
Material	PE100-RC	PAS 1075
Hydrostatic pressure resistance (80 °C, 5,4 MPa)	>165 h	EN ISO 1167-1 EN ISO 1167-2
Tensile elongation	≥350%	EN ISO 6259-1 EN ISO 6259-3
Resistance to crack growth (80 °C, 4 MPa, 2% Arkopal N-100)	>8760 h	ISO 16770
Resistance to slow crack growth (80 °C, 9,2 bar)	>8760 h	EN ISO 13479
Mass flow rate (MFR) (5 kg, 190 °C, 10 min)	0.3-0,9g	EN ISO 1133
Oxidation induction time (200 °C)	≥20 min	EN ISO 11357-6
Longitudinal reversion (e <sub>r</sub> ≤ 16 mm, 110 °C)	≤3%	EN ISO 2505
Chemical resistance	pH 2 ≥ pH ≥ pH 12	ISO/TR 10358

### PRODUCT MARKING

#### PE100-RC

According to PAS 1075:  
**Type 2**

**Open product**

#### Pipe marking

Aspect	Marking
Standard number	EN 12201
Material requirements and type	PAS 1075 Type 2
Manufacturers information	EVOPIPES
Product identification	ULTRASTRESS VISIO
Pipe dimensions (diameter x wall thickness)	e.g. 110 x 6,6
SDR series	e.g. SDR 17
Material	PE100-RC
Pipe pressure rating (bar)	e.g. PN10
Intended application (W-potable water)	W
Date of production (dd/mm/yy)	Date
QA organization signature	Nordic Poly Mark, DK-VAND