PE Systems

PBH0850300

PE100 Polyethylene Pipe Metric DN50 SDR21 x 300 m Black With Blue-Stripe

Application

Used to convey Potable/drinking water

Features

- Lightweight
- Durable
- Long Service Life
- Environmentally Friendly
- Corrosion and Chemical Resistance

Technical Data

Product Properties

Material	Polyethylene
Colour	Black with blue stripe
Approximate mass	112.15 kg
Unprotected UV exposure	2 years in accordance with AS/NZS 2033 yr
End connection	Spigot / Spigot
Rating	SDR21

*For short term, intermittent exposure. Contact Iplex for further details

Product Dimensions

Minimum effective length	300000 mm
Nominal size	450 mm
Mean pipe OD	50.0 mm
Mean pipe ID	44.4 mm

Jointing Details

Joint type	Electrofusion, compression, mechanical
Minimum radius of pipe curvature	35 (x DN) Ref: PIPA POP202

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Standards

Environmental Declarations and Standards

Product standard	Manufactured to AS/NZS 4130 from resin compounds complying with AS/NZS 4131

Material Properties

Mechanical

Density 'specific gravity'	0.95
Tensile yield strain (50 mm/min)	8 - 10%
Tensile modulus	900 MPa
Yield stress	25 MPa
Hardness shore D	63
Poissons ratio	0.4
Ring bending modulus (3 mins)	950 MPa
Apparent ring bending modulus (50 years)	260 MPa
Ultimate tensile strength	23 MPa
Compressive strength	32 MPa
Design stress	8 MPa
Maximum support spacing of pipe graded	0.90m
Maximum support spacing of pipe vertical	1.80 m (Reference AS/NZS 2033, applicable to above ground installations)

Thermal

Coefficient of thermal expansion	1.8×10^{-4}/°C
Thermal conductivity	0.38 $W \cdot m^{-1} \cdot K^{-1}$
Specific heat	1.9 $J \cdot kg^{-1} \cdot K^{-1}$
Vicat softening temperature	116°C
Allowable operating temperature - degrees	Refer Page 3_Table 2 , https://www.iplex.com.au/assets/Uploads/dc73cc0a04/POLIplex-PE-Pipes-Fittings-Technical-Guide.pdf

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Fire Resistance

Flammability	Supports combustion, will burn when sufficient heat and oxygen are provided
Ignitability - AS 1530*	13
Smoke development - AS 1530*	3
Spread of flame - AS 1530*	7
Heat evolved - AS 1530*	6

*AWTA test report number 7-558788-CV

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