

Plastic Corrugated Duct Technical Specifications

MATERIAL & MANUFACTURING		
Base Material	High-Density Polyethylene (HDPE)	ISO 4427-1
Material Grade	PE100-RC (Resistant to Crack)	ISO 17885
Additives	2.5% Carbon Black, UV Stabilizers, Antioxidants	ASTM D1603
Manufacturing Process	Co-extrusion with Dual Wall Structure	EN 13476-3
Color	Black with Blue Stripes (Identification)	BS EN 476
COMMON SIZES & DIMENSIONS		
Nominal Diameter (mm)	Outer Diameter (mm)	Wall Thickness (mm)
150	167 ± 0.5%	3.0 ± 0.2
200	219 ± 0.5%	3.5 ± 0.2
250	272 ± 0.6%	4.0 ± 0.2
300	327 ± 0.6%	4.5 ± 0.3
400	436 ± 0.7%	5.5 ± 0.3
500	546 ± 0.7%	6.5 ± 0.4
600	654 ± 0.8%	7.5 ± 0.4
Corrugation Depth: 15-45mm Pitch: 60-110mm Standard Length: 6m/12m		
MECHANICAL PROPERTIES		
Ring Stiffness (SN)	SN4 – SN16 (4kN/m² to 16kN/m²)	ISO 9969
Tensile Strength	≥22 MPa (Yield Strength)	ISO 527-2
Elongation at Break	≥350%	ISO 527-3
Flexural Modulus	900-1100 MPa	ISO 178
Impact Resistance	No fracture at -30° C (5kg drop test)	ISO 6603-2
Pre-stress Level	0.6 × Yield Strength	ASTM D638

PERFORMANCE CHARACTERISTICS		
Operating Temperature	-40° C to +60° C	ISO 13477
Thermal Expansion	0.2 mm/m • ° C	ISO 11359-2
Chemical Resistance	Resistant to acids, alkalis, salts (pH 2-12)	ISO 4433-4
Water Tightness	0.1 bar pressure / No leakage	EN 1610
Abrasion Resistance	<0.1 mm/year (50kg/m³ solids)	ASTM D3389
Design Life	≥100 years	ISO 9080