



POLYPROPYLENE (PP) CORRUGATED PIPE



TDR™ PRO is our high-performance corrugated polypropylene pipe. It is engineered and certified with exceptional strength, advanced technology, and it provides exceptional watertight joint performance. A superior dual-layer pipe with a co-extruded integrated bell and reinforced double-arch corrugations that offers an ideal solution for critical gravity-flow stormwater drainage applications.

SCOPE

This specification designates the requirements for 12" through 60" TDR™ Pro pipe and fittings for use in gravity-flow drainage applications.

PIPE REQUIREMENTS

TDR™ PRO has a smooth wall interior and annular corrugated profile outer wall. It meets both ASTM F2881 Pipe Class I and AASHTO M330 Pipe Type S specifications. Manning's n value for use in design shall be 0.010

FITTINGS REQUIREMENTS

Fittings meet TDR™ PRO material specifications and are fabricated from the same TDR™ Pro pipe. TDR™ PRO fittings comply with the ASTM D3212 watertight laboratory test when a watertight joint is requested. For optimal performance, only the fittings and joining systems provided by TDR™ should be utilized.

MATERIALS

All Polypropylene compounds used in the manufacture of the dual-wall pipe and fittings shall meet the requirements of ASTM F2881 and AASHTO M330, Section 6.1. Colored polypropylene compounds shall be protected from Ultraviolet (UV) degradation with UV stabilizers.

JOINT PERFORMANCE

TDR™ PRO pipes and fittings shall be joined using a watertight dual-wall integrated bell and spigot joint meeting the requirements of ASTM F2881 or AASHTO M330. The joint shall be watertight in accordance to ASTM D3212. Gaskets shall meet the requirements of ASTM F477. A joint lubricant provided by TDR™ or any other water-based lubricant shall be used during the joint assembly. Please refer to TDR® Installation Guideline for more details.

INSTALLATION

Pipes and fittings shall be installed in accordance to ASTM D2321 and TDR's published Installations Guideline to ensure best installed watertight performance. Maximum cover height depends on materials used for embedment and haunching.

Nominal Diameter	Typical Internal Diameter		Minimum Inner Liner Thickness		Minimum Valley Thickness		Minimum Pipe Stiffness at 5 % Deflection	
in (mm)	in	mm	in	mm	in	mm	Psi	mm
12 (300)	12.03	305.5	0.045	1.10	0.103	2.60	70	482
15 (375)	15.06	382.6	0.050	1.30	0.126	3.20	60	413
18 (450)	18.12	460.4	0.055	1.40	0.132	3.40	56	386
24 (600)	24.33	618.1	0.060	1.50	0.144	3.70	50	344
30 (750)	30.18	766.8	0.065	1.70	0.148	3.80	46	317
36 (900)	36.06	916.1	0.070	1.80	0.153	3.90	40	275
42 (1050)	42.01	1067.1	0.070	1.80	0.158	4.00	35	241
48 (1200)	48.71	1237.4	0.072	1.80	0.179	4.60	30	206
60 (1500)	60.51	1537.2	0.085	2.20	0.215	5.50	25	170