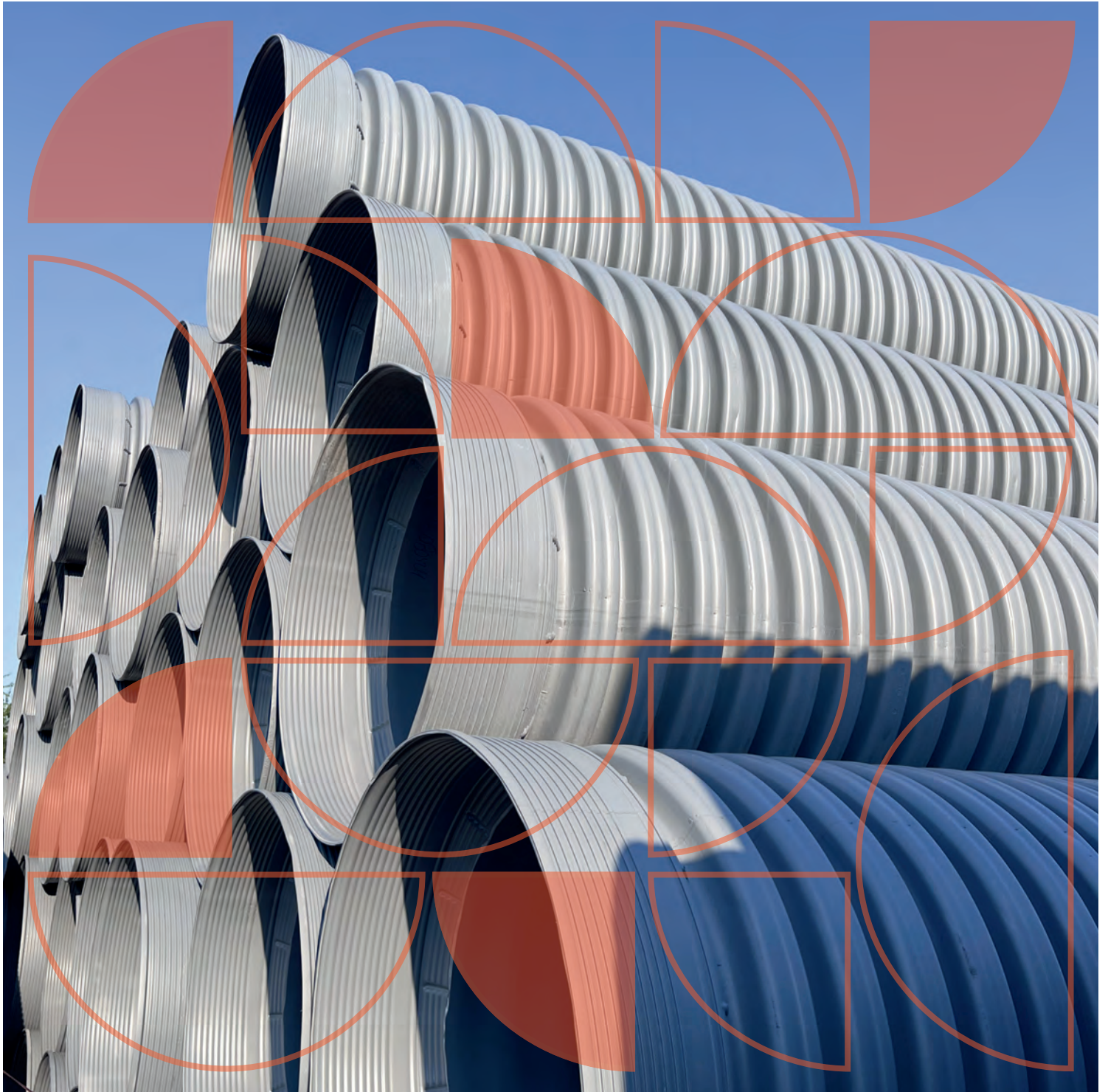


TDR PRO®

POLYPROPYLENE CORRUGATED PIPE



TDR PRO® is a high-performance polypropylene (PP) corrugated pipe engineered for critical gravity-flow stormwater drainage applications. It features a superior dual-layer construction with co-extruded integrated bell and reinforced double-arch corrugations, providing exceptional structural strength and watertight joint performance through advanced manufacturing technology.

SCOPE

This specification establishes the requirements for 12 inches through 60 inches TDR PRO® polypropylene (PP) corrugated pipe and fittings for use in gravity-flow drainage applications. TDR PRO® pipe is engineered and approved for critical stormwater drainage infrastructure.

PIPE REQUIREMENTS

TDR PRO® pipe is a dual-wall construction featuring:

- Smooth-wall interior profile for optimized hydraulic performance
- Annular (circular) corrugated exterior for structural strength and stiffness
- Co-extruded integrated bell for simplified joint assembly
- Reinforced double-arch corrugations for load-bearing capacity

Pipe shall comply with the following standards:

- ASTM F2881 – Standard Specification for Polypropylene (PP) Plastic Corrugated Wall Drainage Pipe and Fittings (Pipe Class I)
- AASHTO M330 – Standard Specification for Corrugated Polypropylene (PP) Pipe (Type S)

FITTINGS REQUIREMENTS

TDR PRO® fittings shall meet all material specifications for TDR™ PRO pipe and shall be fabricated from the same polypropylene compounds as the pipe itself.

When watertight joint performance is specified, fittings shall achieve watertight performance in accordance with ASTM D3212 laboratory testing. Gaskets shall meet ASTM F477 requirements.

For optimal system performance and joint integrity, only TDR™ PRO-supplied fittings and joining systems shall be used in conjunction with TDR PRO® pipe. Custom fitting configurations are available upon request.

MATERIALS

TDR PRO® pipe and fittings are manufactured from virgin polypropylene (PP) compounds meeting the requirements of:

- ASTM F2881 – Standard Specification for Polypropylene (PP) Plastic Corrugated Wall Drainage Pipe and Fittings
- AASHTO M330 – Standard Specification for Corrugated Polypropylene (PP) Pipe, Section 6.1

All colored polypropylene compounds shall include UV stabilizers to resist degradation from solar exposure. Standard material color is blue; custom colors available upon request.

Polypropylene offers superior chemical resistance to many common industrial and environmental contaminants, low moisture absorption, and excellent long-term durability for gravity drainage applications in a broad range of soil and environmental conditions.

JOINT PERFORMANCE

TDR PRO® pipes and fittings shall be joined using a watertight dual-wall integrated bell-and-spigot joint design meeting the requirements of:

- ASTM F2881 – Polypropylene (PP) Plastic Corrugated Wall Drainage Pipe and Fittings
- AASHTO M330 – Standard Specification for Corrugated Polypropylene (PP) Pipe

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	in	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

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