



259 Murdock Rd
 Troutman, NC 28166
 800-438-6057

Heavy Duty PolyDrain - 534AF

Standard Specifications

Pre-cast Trench Drain

Materials:

Pre-cast Trench Drain – Trench drain shall be PolyDrain; manufactured by ABT, Inc., 259 Murdock Road, Troutman, NC – (800) 438-6057. The pre-cast trench shall be manufactured using polyester polymer concrete consisting of 1-meter (39.19”) or ½ - meter pre-sloped channels with nominal 155mm (6 in) outside width, 100mm (4 in) inside width with radius bottom. Pre-sloped channels shall have a standard slope of 0.6%. Non-sloping channels must have written approval by engineer prior to installation. Channels shall have tongue and groove joints. All channels must have full length anchoring ribs for a positive mechanical lock with the surrounding concrete.

Monolithic polymer concrete shall be made from a composition of aggregate and polyester resin and shall have the following properties when tested as specified below:

Property	ASTM Test Method	Value
Tensile Strength, Mpa (PSI)	C307	10 Mpa Min. (1,500)
Compressive Strength, Mpa (PSI)	C579	80 Mpa Min. (12,000)
Bending Strength, Mpa (PSI)	C580	20 Mpa Min. (3,000)
Moisture Absorption, %	C140	0.5% Max
Chemical Resistance	C267	Pass
Freeze/Thaw, # of cycles W/o weight loss	C666	1,600 Min

Sidewall Extensions– Sidewall extensions for channels may be used for hydraulic performance or to maintain the standard slope of 0.6% in greater trench run lengths. Sidewall extensions shall have six anchor bolts per one meter (39.19”) section and shall have tongue and groove joints. Sidewall extensions shall be composed of similar material and thickness as the channels.

Frame & Grating - Frame and Grate assembly shall be PolyDrain part number 534AF. Frame shall be cast iron meeting ASTM- A48 class 30 gray iron. Grate shall be ductile iron meeting ASTM-A536 grade 80-55-06 and shall have a minimum open area of 0.04m²/Lm (0.13 Ft²/LFt). Grating shall be made in USA, and shall conform to the FHWA’s “Buy America” policy 23 CFR 635.410(b) (as amended by enactment of the 1991 ISTEA). The frame and grate shall be black epoxy-coated. The frames shall be independent of the channels. The frames shall fully encapsulate the grate and shall have 12.7mm x 100mm (0.50” dia. x 4”) long minimum anchor bolts on opposite corners. The grate, when installed in conformance with the manufacturer’s recommendations, shall be capable of withstanding a distributed load of at least 775 psi. with a 2:1 safety factor. The assemblies shall seat into the channels without the frame or grate rocking. The grates shall be locked to the frame using a galvanized ½-13 bolt with a bolt torque of 600in/lb. The locking devices shall not restrict the channel flow capacity.

A Certificate of Compliance in conformance with the provisions of these Standard Specifications shall be furnished to the Engineer and/or Architect upon request.

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Interceptor[®]

Trench Former[®]