

S3.04 Grain-Aire® Pipe Specification

Scope

This specification describes 18- through 36-inch (450 to 900 mm) Grain-Aire pipe for use in metering air and providing uniform flow air in flat storage structures.

Pipe Requirements

Grain-Aire pipe shall have a smooth interior and annular exterior corrugations covered with a polypropylene protective screen to provide unrestricted air flow.

Joint Performance

Pipe shall be joined with split or snap couplers covering at least two full corrugations on each end of the pipe.

Material Properties

Pipe and fittings shall be high density polyethylene conforming with the minimum requirements of cell classification 424400C as defined and described in the latest version of ASTM D3350.

Perforations

Nominal Diameter	Corrugations per foot	Numbers of holes per foot	Minimum hole diameter	Open area per foot
18" (450 mm)	4.7	24	5/8" (16 mm)	7.36
24" (600 mm)	4.7	24	5/8" (16 mm)	7.36
30" (750 mm)	2.9	32	1/2" (13 mm)	6.28
36" (900 mm)	2.4	32	1/2" (13 mm)	6.28

Protective Screen

Material	Polypropylene	Test Method
Bursting Strength (lbs/in ²)	484	ASTM D3786
Weight (oz/yd ²)	5.3	ASTM D3776
% Open Area	25	ASTM D475
Tensile Strength (lbs) (Grab Test)	425 (Wrap)	ASTM D5034
	273 (Fill)	