



# AirTech® Guide Specification

## PVC (Polyvinyl Chloride) Fume Exhaust Systems

Scope: This Specification encompasses PVC (Polyvinyl chloride) thicknesses, and welding methods used for corrosive exhaust ventilation piping, 3" (90mm) thru 36" (900mm).

**1.0 Material**

Pipe and fittings shall be manufactured from virgin rigid PVC (Polyvinyl chloride) vinyl compounds with a Cell Class of 12454 as identified in ASTM D 1784. Pigmented to RAL 7011

**1.1 Duct**

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.4.

**1.2 Fittings**

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod, or solvent cement.

**1.3 Joining**

Installation shall comply with the latest installation instructions published by Simtech and shall conform to all local plumbing, building, and fire code requirements.

**1.3.1 Welding rod**

Welding rod shall be the same material as the pipe and fitting.

**1.3.1a Hot Air Welding**

Welding is to be performed using a hot air welder having a source of clean dry air. Compressed air shall not be used for welding.

**1.3.2 Solvent Cement**

Solvent cement joints shall be made in a two-step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM D 2564. Systems shall be hydrostatically tested after installation.

**1.4 Wall Thickness**

Minimal Wall thicknesses will be as follows:

Diameter	Thickness	Diameter	Thickness
3" (90mm)	2.7mm	16" (400mm)	3.2mm
4" (110mm)	2.5mm	18" (450mm)	3.6mm
6" (160mm)	2.5mm	20" (500mm)	4.0mm
8" (200mm)	2.5mm	24" (600mm)	5.0mm
10" (250mm)	2.9mm	28" (700mm)	6.0mm
12" (315mm)	2.9mm	32" (800mm)	6.3mm
14" (355mm)	2.9mm	36" (900mm)	10.0mm

**2.0 Velocity**

Recommended velocity not to exceed 10 meters per second. ( 32.8 feet per second)

**3.0 MANUFACTURER**

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