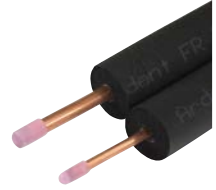


# Refrigeration Coils

## Fire Retardant Pair Coil

Ardent PairCoilFR provides a quick and reliable solution to air conditioning, heating and refrigeration installations where NCC compliance is required.

- Conforms with National Construction Code fire safety regulations and requirements
- Fire rated insulation to AS/NZS 1530.3
- Available in 10mm, 13mm and 19mm insulation thickness
- Annealed copper tube manufactured to AS/NZ 1571
- R410A compliant copper
- 25 year product warranty on copper



For AWTA Fire Properties testing results, please see APPENDIX A.

Code	Copper Tube Dimensions		Insulation Wall Thickness (mm)	Material R-Value (K.m/W)		Length (m)	Weight (kg)
	Outside Diameter x Wall Thickness (mm)	Outside Diameter (inches)					
800000	6.35 x 0.81 - 9.52 x 0.81	1/4 - 3/8	10	1/4 = 0.54	3/8 = 0.48	18	8.5
800010	6.35 x 0.81 - 12.70 x 0.81	1/4 - 1/2	10	1/4 = 0.54	1/2 = 0.45	18	10.3
800011	6.35 x 0.81 - 15.88 x 1.02	1/4 - 5/8	10	3/8 = 0.48	5/8 = 0.42	18	13.1
800012	9.52 x 0.81 - 15.88 x 1.02	3/8 - 5/8	10	3/8 = 0.48	3/4 = 0.40	18	14.4
800013	9.52 x 0.81 - 19.05 x 1.14	3/8 - 3/4	10	1/2 = 0.45	3/4 = 0.40	18	15.9
9800167	6.35 x 0.81 - 9.52 x 0.81	1/4 - 3/8	13	1/4 = 0.73	3/8 = 0.63	20	10.2
9800168	6.35 x 0.81 - 12.70 x 0.81	1/4 - 1/2	13	1/4 = 0.73	1/2 = 0.58	20	11.34
9800169	6.35 x 0.81 - 15.88 x 1.02	1/4 - 5/8	13	1/4 = 0.73	5/8 = 0.55	20	15.6
9800170	9.52 x 0.81 - 15.88 x 1.02	3/8 - 5/8	13	3/8 = 0.63	5/8 = 0.55	20	17.4
9800171	9.52 x 0.81 - 19.05 x 1.14	3/8 - 3/4	13	3/8 = 0.63	3/4 = 0.53	20	19.5
9800172	6.35 x 0.81 - 9.52 x 0.81	1/4 - 3/8	19	1/4 = 1.25	3/8 = 1.10	18	11.84
9800173	6.35 x 0.81 - 12.70 x 0.81	1/4 - 1/2	19	1/4 = 1.25	1/2 = 1.00	18	13.97
9800174	6.35 x 0.81 - 15.88 x 1.02	1/4 - 5/8	19 - 21	1/4 = 1.25	5/8 = 1.07	18	16.7
9800175	9.52 x 0.81 - 15.88 x 1.02	3/8 - 5/8	19 - 21	3/8 = 1.10	5/8 = 1.07	18	20.3
9800176	9.52 x 0.81 - 19.05 x 1.14	3/8 - 3/4	19 - 21	3/8 = 1.10	3/4 = 1.02	18	21.85

Safe Working Pressure			
Copper Tube Outside Diameter x Wall Thickness	Safe Working Pressure (kPa)		
	50°C	65°C	75°C
6.35 x 0.81	10635	9545	8820
9.52 x 0.81	6800	6105	5640
12.70 x 0.81	4995	4480	4140
15.88 x 1.02	5030	4515	4170
19.05 x 1.14	4670	4190	3870

Pipe insulation properties tested and calculated in accordance with AS/NZS 4859.1

Thermal Conductivity @23°C (W/m.K)	Water Absorption (% W/W)	Vapour Barrier (μ)	Fungal Growth	Working Temperature (°C)
0.0334	3.85	>6000	Nil	-40 to +105



AS/NZS 1571  
SMK40029

# Appendix A – AWTA Product Testing

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## 13mm Tube Insulation

Colour	Black
Approximate Weight	816g/m <sup>2</sup>
End Use	Insulation

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### MATERIAL SPECIFICATION PROVIDED BY CLIENT

Nominal Composition	Nitrile Butadiene Rubber
Nominal Thickness	13mm

AS/NZS 1530.3 - 1999

Methods for Fire Tests on Building Materials, Components and Structures

Part 3: Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release

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### RESULTS

Face tested	Face	
Date tested	15/05/2017	
	<u>Mean</u>	<u>Standard Error</u>
Ignition time	0 min	Nil
Flame propagation time	0 sec	Nil
Heat release integral	0 kJ/m <sup>2</sup>	Nil
Smoke release, log d	-1.3699	0.1045
Optical density, d	0.0510	–
Number of specimens ignited	0	
Number of specimens tested	6	

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### REGULATORY INDICES

		<u>Range</u>
Ignitability Index	0	0–20
Spread of Flame Index	0	0–10
Heat Evolved Index	0	0–10
Smoke Developed Index	3	0–10

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These results only apply to the specimen mounted, as described in this report. The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

Ignition is initiated by a pilot flame that is held near, but does not touch the specimen. A material that does not ignite during the standard test may ignite if contacted with a pilot flame during the test.

Each test specimen had an unattached backing of 4.5mm thick fibre reinforced cement board.

Each test specimen was clamped along all sides.