

Authorised New Zealand Distributor
Ph (09) 483 4000 www.firestopcentre.co.nz

FIRESTOP Duct Wrap-25 Fire Stopping Systems

Fire Protection of Circular Ducts - Internal Fire

Overview

FIRESTOP Duct Wrap-25 will protect horizontal or vertical circular ducts up to 300mm diameter from internal fire (grease ducts) for up to 120 minutes by wrapping the ducts in one or two layers of wrap. The table on page 3 sets out the requirements for particular scenarios. In all cases there are some common elements, as set out below.

The Ducts

All ducts should be constructed to NZ standard AS4254.2-2012, min pressure class 500. The duct support system should comply with AS4254.2-2012 with supports 1.5m apart. The duct should not provide any structural support where it penetrates a wall or floor.

Fig 1: FIRESTOP Duct Wrap-25 being tested in FireTSLab in Auckland



Wrap Fixings:

Wrap on horizontal or vertical ducts may be fixed with FIRESTOP Stainless Steel 12mm Straps fitted 50mm from the end of each wrap and at maximum 300mm centres along the duct. Pins at 200mm centres may be used if more convenient but are not required for fire rating purposes. Strap or pin each layer separately.

Tapes:

All joints should be taped and all cut ends of wrap must be taped (no open wrap showing). For all systems requiring an insulation rating FIRESTOP Foil Tape should be used. This tape is of the required construction (min $50\mu m$ thick with no reinforcing) and has the required adhesive rating (min 120 deg C heat resistance).

If an insulation rating is not required then any tape may be used.



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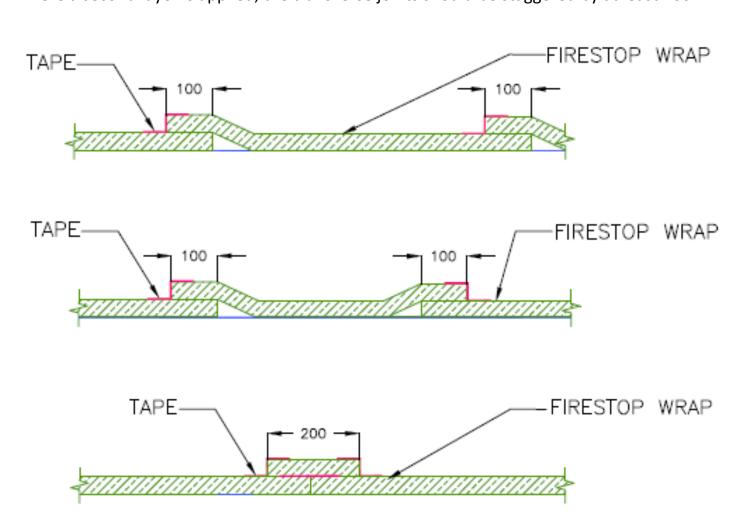
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Wrap Joints:

All wrap joints (both longitudinal and transverse) must be of one of the types shown below. Butt joints without a collar are not permitted, even under a second layer. Tape all joints. Longitudinal joints should be staggered by at least 200mm and be 200mm from the duct edge. Where a second layer is applied, the transverse joints should be staggered by at least 200mm.



Wall or Floor Penetrations:

Where a duct penetrates a non fire-rated wall or floor the duct wrapping should continue without interruption through the wall or floor.

Where a duct penetrates a fire-rated wall or floor there are special penetration details which must be adhered to. These often require a second layer of wrap at the penetration and are set out in detail in the system pages shown on the Firestop Centre website.



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Summary of Requirements for Duct Wrapping

Duct Type & Max Size (mm)	Orientation	Fire Type	Wrap Layers	Fire Rating (Minutes)	Insulation Rating (Minutes)
Any <u>circular</u> duct with diameter up to 300mm	Vertical	Internal	1	120	30
	Horizontal	Internal	1	120	60