

Northern Territory / ADMA-NCC (BCA) Flexible Duct, Thermal & Fire Rating Requirements from May 1 2013

Domestic Applications

BCA 2009 is mandatory for all Class 1 + 10 domestic buildings in NT issued with a building permit from May 1 2009.

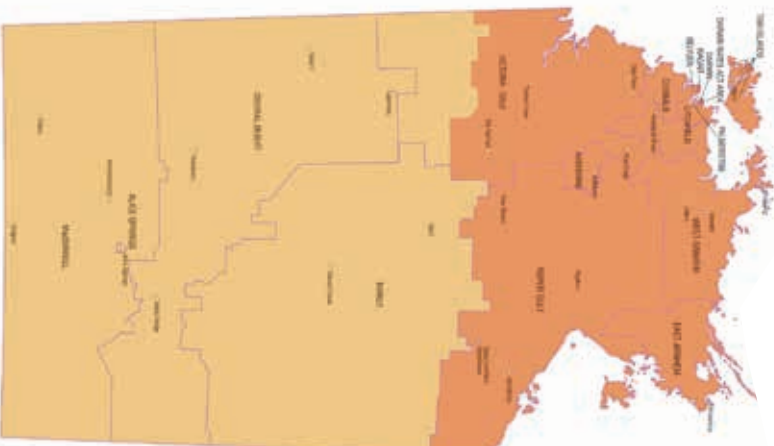
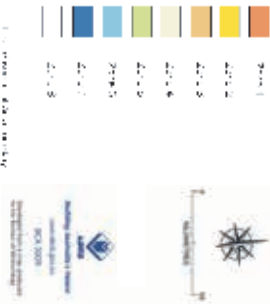
BCA 2009 specifies:

- Total R Value (Rt) (Insulation R Value plus R 0.15 allowance for outer cat. surface) for all flexible duct and fittings tested to AS/NZS 4859.1. It is not acceptable to quote an insulation thickness and/or weight instead of a Total R Value (Rt).
- All duct in a heating system that is ignited by a flame must be fire rated to AS 4254.1:2012
- R 0.4 for fittings in oil installations
- R 0.6 for duct in oil evaporative systems
- R 1.0 for duct in oil heating only or refrigerated cooling only systems.
- R 1.5 for duct in oil reverse cycle and odd on cooling systems (see note).

Note: R 1.0 may be used in reverse cycle and odd on cooling systems. If the ducts are:

- Under a suspended floor within an enclosed perimeter or
- In a roof space that has insulation of not less than R 0.5 directly beneath the roofing i.e. above the duct. NB Sealing / reflective foils can usually achieve R0.5.

Climate Zones



This is a guide only. Please confirm this information with your territory regulator

Commercial Applications

BCA 2009 is mandatory for commercial building Class 2 and a class 4 part of a building in NT issued with a building permit from May 1 2009.

BCA 2009 specifies:

- Total R Value (Rt) (Insulation R Value plus R 0.15 allowance for outer or surface) for all flexible duct and fittings tested to AS/NZS 4859.1. It is not acceptable to quote an insulation thickness and/or weight instead of a Total R Value (Rt).
- All duct in oil systems must be fire rated to AS 4254.1:2012
- For systems less than 65 kW and 65 kW heating capacity, the following R_t duct is required:
 - R 0.6 for duct in oil evaporative systems.
 - R 1.0 for duct in oil heating only or refrigerated cooling only systems.
 - R 1.5 for duct in oil Reverse cycle and odd on cooling systems (see note).
- For systems greater than 65 kW and 65 kW heating capacity, the following R_t duct is required:
 - R 0.7 for duct in oil evaporative cooling systems, except within a conditioned space, where no insulation is acceptable.
 - R 1.0 for duct in oil heating only or refrigerated only systems.
 - R 1.5 for duct in oil Reverse cycle and odd on cooling systems (see note).
- R 1.0 for duct in climate Zone 1 and 2 respectively except within a conditioned space where R 1.0 acceptable. (see note)

Note: R 1.0 may be used in reverse cycle and odd on cooling systems. If the ducts are:

- Under a suspended floor within an enclosed perimeter or
- In a roof space that has insulation of not less than R 0.5 directly beneath the roofing. NB Sealing / reflective foils done are not sufficient.

Contractors/homeowners need to ensure that only duct with a designated and appropriate material R-value (R_t) or total R value (R_t) is used. Contractors need to ensure that the duct is installed to demonstrate that required thermally rated duct has been ordered, supplied and installed by the duct supplier.

The supply of a "letter of certification", "letter of compliance" or equivalent, by a builder that indicates compliance, demonstrates that regulatory standards have been followed. The failure to install thermally and fire rated compliant product may breach state or local regulations; builders' guarantees; or the Trade Practices Act; possibly triggering make-good provisions; and may extend for some years depending on local regulations and building contracts.