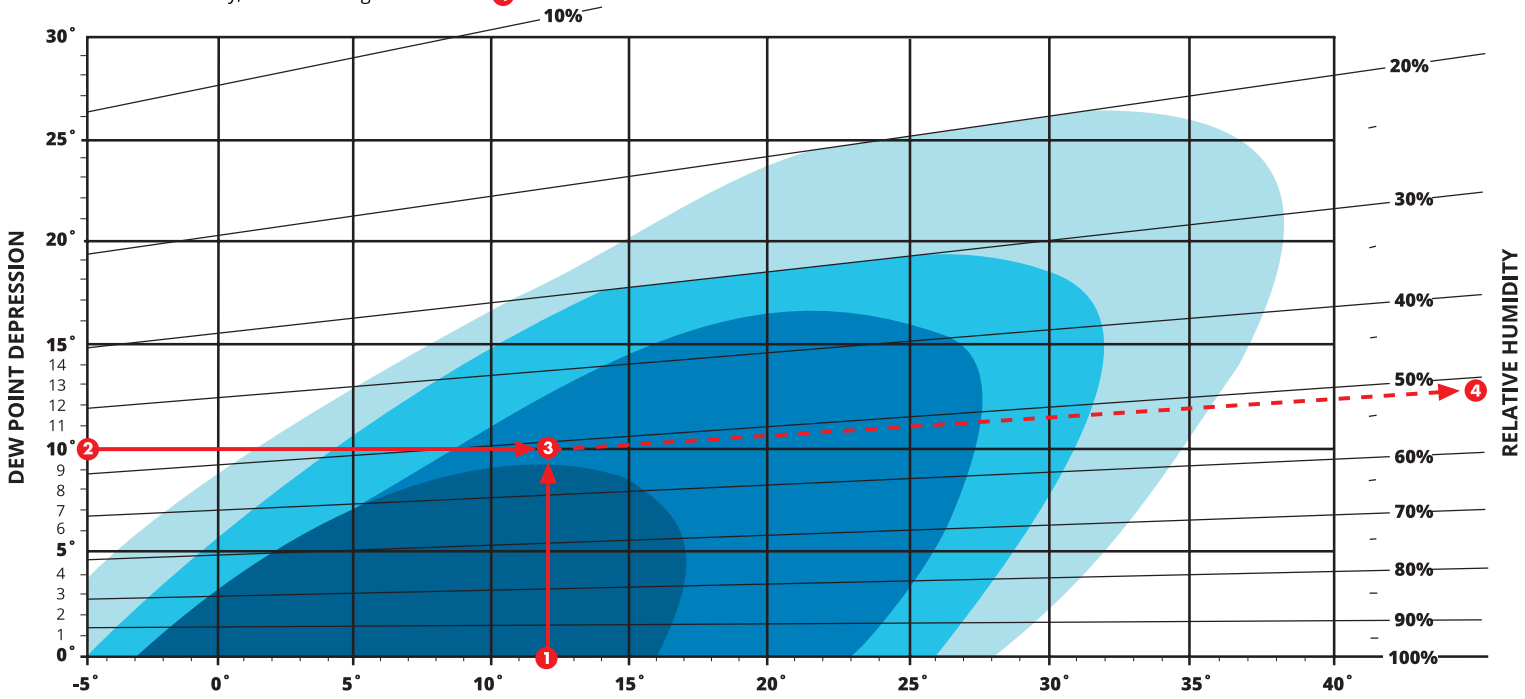
Carburettor icing probability

Australian Government
Civil Aviation Safety Authority

To use this chart

- obtain the temperature and dew point
- calculate the difference between the two. This is the 'dew point depression'
- for example, if the temperature is 12˚C (1) and the dew point is 2˚ the dew point depression will be 10˚ (2)
- for icing probability, refer to the shading legend appropriate to the intersection of the lines (3)
- for relative humidity, refer to the right hand scale (4)



To work out dew point depression:

temperature - dew point = dew point depression

Serious icing – any power

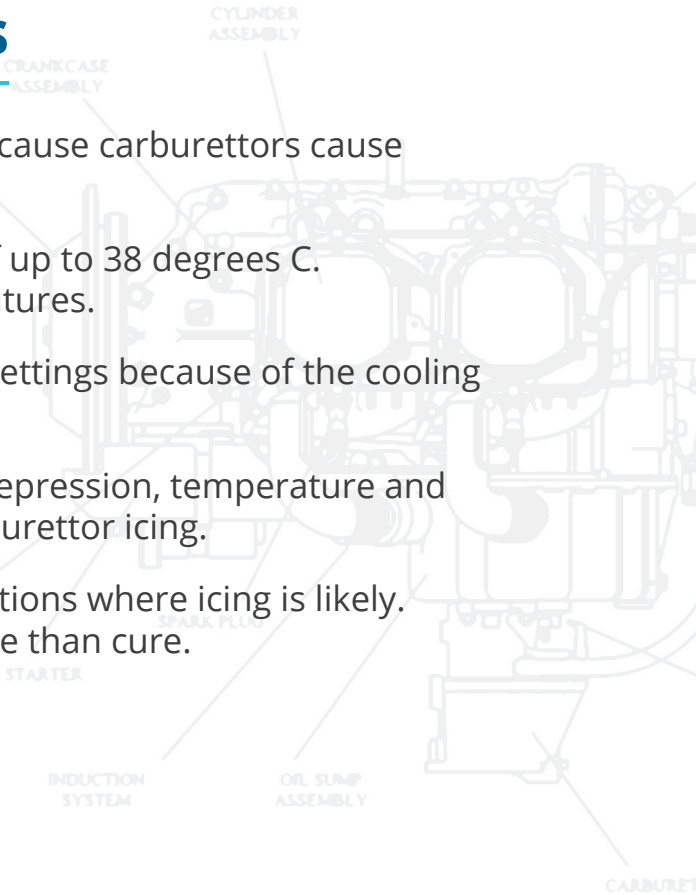
Moderate icing – cruise power, or **Serious icing** – descent power

Serious icing – descent power

Light icing – cruise or descent power

Carburettor icing fast facts

* Carburettored engines suffer most from icing because carburettors cause evaporation, which cools the air.
* Carburettor icing can happen at temperatures of up to 38 degrees C. Paradoxically, it is less likely at very cold temperatures.
* Carburettor icing is more likely at partial power settings because of the cooling effect of a partly-closed throttle butterfly.
* Using a probability chart, along with dew point depression, temperature and relative humidity can be a good predictor of carburettor icing.
* Carburettor heat should be applied fully in conditions where icing is likely. With icing, prevention is easier and more effective than cure.



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