

Ice

Overview

- ☞ Ice forms when the temperature of water falls below freezing point. It can be describe glaze ('black ice'), hoar frost or rime.
- ☞ Glaze is clear ice that forms when supercooled rain or drizzle falls on a subzero surface. On a road it can be extremely dangerous as it may appear wet rather than icy.
- ☞ Hoar frost is the sparkling white frost that forms on surfaces by condensation, typically during a clear and cold night
- ☞ Ice on roads can be prevented with treatment of salt, as salt in solution has a lower freezing point than water. Effectiveness depends on salt staying on the road as rain and strong winds may remove it.

Ice in the UK

Ice typically occurs during the winter months when nights are at their longest and coldest. The most common form of ice is hoar frost with favoured conditions tending to occur under ridges of high pressure. Ice, which generally tends to occur less often, will form where surfaces are wet and then freeze. This may be caused by compacted or melting snow, or the conditions which follow the passage of a cold front. Glaze is formed by freezing rain, which although is very rare in the UK, can occur when a warm front approaches with a very cold undercut of air.

Impacts

Ice impacts include:

Disruption to transport from road accidents, tailbacks and closed roads. Rail and bus services are delayed, cancelled or reduced with passengers left stranded. Airports close, with flights delayed or cancelled, due to de-icing of aircraft and aircraft overshooting runways.

Disruption to energy and telecommunications from ice accretion on power lines, masts and pylons, resulting in damage and power cuts.

Other disruption includes damage to buildings, schools closures and pedestrian injuries from slips and trips.

Notable ice events

9 February 2012 - Freezing rain event in Northern England

December 2010 - UKs coldest December since Met Office records began

13 January 2010 - Freezing rain event in Yorkshire

Winter 2009/2010 - UKs coldest winter since 1978/1979, numerous ice events



More information can be found at: www.naturalhazardspartnership.org/hazards/ice