

Types of icing (ice accretion) at sea



freezing spray; after a storm (photo Environment Canada)

There are two main types of icing at sea: icing from seawater and icing from fresh water. Icing from seawater may be due either to spray and seawater thrown up by the interaction between the ship, or installation, and the waves or else to spray blown from the crests of the waves or both. Icing from fresh water may be due to freezing rain and/or drizzle, or occasionally wet snow followed by a drop in temperature, or it may be due to freezing fog. Both types may occur simultaneously.



icing (photo m.v. Marinus Green)

Meteorological factors related to icing (ice accretion)

The most important meteorological elements governing ice accretion at sea are the wind speed and the air temperature. The higher the wind speed relative to the ship and the lower the air temperature, the greater the rate of ice accretion. There appears to be no limiting air temperature below which the icing risk decreases.