

BABY, IT'S COLD OUTSIDE WATCH THE WIND CHILL FACTOR!

The National Weather Service has a new Wind Chill Temperature Index designed to more accurately calculate how cold air feels on human skin. The previous wind chill index underestimated the time to freezing and overestimated the chilling effect of the wind.

For the first time, the new Wind Chill Chart includes a frostbite indicator, showing the points where temperature, wind speed and exposure time will produce frostbite.

The chart below includes three shaded areas of frostbite danger. Each shaded area shows how long (30, 10 and 5 minutes) a person can be exposed before frostbite develops.

		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times: 30 minutes (light blue), 10 minutes (medium blue), 5 minutes (dark blue)

Wind Chill (°F) = $35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$
 Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01

For example, a temperature of 0 degrees Fahrenheit and a wind speed of 15 mph will produce a wind chill temperature of -19 degrees F. Under these conditions, exposed skin can freeze in 30 minutes.

AN IBEW SAFETY REMINDER

WHAT IS WIND CHILL TEMPERATURE?

It is the temperature it “feels like” outside and is based on the rate of heat loss from exposed skin caused by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate, causing the skin temperature to drop.

A Wind Chill Warning is issued by the National Weather Service when wind chill temperatures are life threatening. A Wind Chill Advisory is issued when wind chill temperatures are potentially hazardous.

What is Frostbite?

Frostbite is an injury to the body caused by freezing body tissue. The most susceptible parts of the body are the extremities such as fingers, toes, ear lobes or the tip of the nose. Symptoms include a loss of feeling in the extremity and a white or pale appearance. Medical attention is needed immediately for frostbite. The area should be SLOWLY re-warmed.

What is Hypothermia?

Hypothermia is abnormally low body temperature (below 95 degrees F). Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness and apparent exhaustion. Medical attention is needed immediately. If it is not available, begin warming the body SLOWLY.

Dressing for Cold Weather

- Wear layers of loose-fitting, lightweight, warm clothing. Outer garments should be tightly woven, water repellent and hooded.
- Wear a hat—40 percent of body heat can be lost from the head.
- Cover your mouth to protect your lungs from extreme cold.