

WEATHER & DEW POINT PRECAUTIONS FOR IB® COATINGS

IB® Acrylic Coatings and other water-based materials require complete evaporation of water to cure. Lower temperatures and higher humidity conditions prolong drying time. Allow for sufficient daylight hours necessary for curing of materials. IB® Silicone and IB® Urethane Coatings and other solvent-based materials cure by reacting with air moisture. Lower temperatures will prolong drying time, while higher humidity conditions will accelerate curing process. Allow for sufficient daylight hours necessary for curing of materials. **CAUTION:** Other weather and environmental conditions to consider are mist, dew, condensation, and relative humidity. These factors can lengthen or accelerate the coating drying time depending on its chemistry. If IB® Acrylic Coating products are exposed to rain or moisture before they are completely dry, the product may “wash-off” the roof or release from the substrate. If IB® Silicone or IB® Urethane Coating products are exposed to rain or moisture before they are completely dry, the product may not obtain an adequate bond to the substrate. Extreme caution should be used especially during the months of October – February as the temperatures can fall to within 5°F of the dew point within 6 hours of application which can cause the product to release from the substrate.

DEW POINT TABLE

RELATIVE HUMIDITY	AMBIENT AIR TEMPERATURE - FAHRENHEIT										
	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°
90%	18	28	38	47	57	67	77	87	97	107	117
85%	17	26	36	45	55	65	75	85	95	104	113
80%	16	25	34	44	54	63	73	82	93	102	110
75%	15	24	33	42	52	62	71	80	91	100	108
70%	13	22	31	40	50	60	68	78	88	96	105
65%	12	20	29	38	47	57	66	76	85	93	103
60%	11	19	27	36	45	55	64	73	83	92	101
55%	9	17	25	34	43	53	61	70	80	89	98
50%	6	15	23	31	40	50	59	67	77	86	94
45%	4	13	21	29	37	47	56	64	73	82	91
40%	1	11	18	26	35	43	52	61	69	78	87
35%	-2	8	16	23	31	40	48	57	65	74	83
30%	-6	4	13	20	28	36	44	52	61	69	77

SURFACE TEMPERATURE AT WHICH CONDENSATION OCCURS

CONSIDERATIONS:

- Red columns indicate that the surface temperature is either below the recommended application temperature or the dew point is not within the safe buffer temperature for recommended applications. The roof surface should be at least 10°F (6°C) above the dew point. (Dew point is the temperature at which moisture will condense on surface.) No coatings should be applied unless the ambient and surface temperature is a minimum of 5°F above this point. A common practice is to give a temperature buffer of at least 3°C or 5°F above the 10-degree dew point range, (15°F total). Temperature must remain at least 5 degrees above the dew point during the drying time.
- Yellow columns indicate that the dew point is within the safe buffer temperature but is within a range that should be monitored as the dew could form if the ambient temperatures drop overnight.
- Green columns indicate that the temperature is generally considered safe for coating application. In all cases, the ambient temperature, relative humidity, surface temperature and product temperature should be evaluated to determine if conditions are within the applicable range suitable for product application.

CONDENSE/CONDENSATION: To change from gas to liquid: to lose heat and change from a vapor into a liquid or make a vapor change to a liquid.

DEW POINT: The temperature at which moisture in air will condense on the surface. No coatings should be applied unless ambient and surface temperature is a minimum of 5°F above this point (recommended 15°F). The temperature must remain at least 5 degrees above the dew point throughout the dry time of the coating.

EXAMPLE: If air temperature is 60°F (15.6°C) and relative humidity is 70% the dew point is 50°F (10°C). The moisture in the air will condense and form water droplets on the surface if it reaches a surface temperature of 50°F (10°C).

ADDITIONAL TEMPERATURE RESTRICTIONS: No coating should be applied unless surface temperature is 40°F (4°C) minimum and 120°F (49°C) maximum. IB® Coatings may have different requirements for high and low temperature application.

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