



## HexChecks™ Temperature Range

### Temperature Range

HexChecks were tested on Mil-Spec chromate primed panels (MIL-PRF-23377 Type 1 Class C, PPG CA 7233) in a temperature range of -54C to 70C (-65F to 158F). Panels were cooled via immersion in dry ice. Panels were heated via a Lindberg BlueM convection oven. Temperatures were verified with a Fluke infrared thermometer.

A hex check was rubbed on the chromate primed surface for 20 seconds at each temperature. Results are recoded below.

The liquid in hex checks has a freezing point of approximately -7C (19F). Above its freezing point, the hex check will change color at a slower rate at cooler temperatures but will still indicate the presence of hexavalent chromium. At high temperatures, the reaction proceeds at a rapid rate with flash evaporation of the liquid the limitation at extremely high temperatures.

Temperature °C (aprox. °F)	Result
-65 (-85)	Frozen, no color
-50 (-60)	Frozen, no color
-30 (-20)	Frozen, no color
-20 (-5)	Frozen, no color
-15 (5)	Frozen, no color
-10 (15)	liquid, no color
-5 (25)	liquid, light purple
0 (32)	purple
10 (50)	purple
20 (70)	purple
30 (85)	purple
40 (105)	purple
50 (120)	purple
60 (140)	purple
70 (160)	light purple, flash evaporation of liquid
70+ (160+)	flash evaporation