

Data thresholds and colour indicators

Colour guide:

BLUE: good | **GREEN: moderate** | **AMBER: poor** | **RED: unhealthy** | **DARK RED: hazardous**

PCN thresholds

Particle size (µm)	Blue (Good)	Green Moderate)	Amber (Poor)	Red (Unhealthy)	Dark Red (Hazardous)
0.3 µm	≤ 50	51–100	101–300	301–1000	>1000
0.5 µm	≤ 20	21–50	51–150	151–500	>500
1.0 µm	≤ 10	11–30	31–100	101–300	>300
3.0 µm	≤ 3	4–10	11–30	31–100	>100
5.0 µm	≤ 1	2–5	6–15	16–50	>50
10.0 µm	≤ 0.5	0.6–2	2.1–5	5.1–15	>15

PM thresholds

Pollutant	Blue (Good)	Green Moderate)	Amber (Poor)	Red (Unhealthy)	Dark Red (Hazardous)
PM 1 (µg/m ³)	≤ 5	6–10	11–20	21–40	> 40
PM 2.5 (µg/m ³)	≤ 10	11–25	26–50	51–100	> 100
PM 10 (µg/m ³)	≤ 20	21–50	51–100	101–200	> 200

Colour code meanings for PCN and PM

Colour	Air quality condition	Typical PCN range (particles/cm ³)	Typical PM range (µg/m ³)	What it means
Blue Good	Air is very clean	0.3 µm ≤ 50 0.5 µm ≤ 20 1.0 µm ≤ 10	PM ₁ ≤ 5 PM _{2.5} ≤ 10 PM ₁₀ ≤ 20	Very low particle levels. Air is clean, safe, and comfortable to breathe.
Green Moderate	Air quality acceptable	0.3 µm 51–100 0.5 µm 21–50 1.0 µm 11–30	PM ₁ 6–10 PM _{2.5} 11–25 PM ₁₀ 21–50	Air quality is acceptable but slightly elevated. May indicate light dust, outdoor air influence, or normal activity levels.
Amber Poor	Noticeable particle build-up	0.3 µm 101–300 0.5 µm 51–150 1.0 µm 31–100	PM ₁ 11–20 PM _{2.5} 26–50 PM ₁₀ 51–100	Air quality is starting to degrade. Possible causes: outdoor pollution ingress, cleaning, or increased occupancy. Consider switching on filtration or ventilation.
Red Unhealthy	Poor air quality	0.3 µm 301–1000 0.5 µm 151–500 1.0 µm 101–300	PM ₁ 21–40 PM _{2.5} 51–100 PM ₁₀ 101–200	May cause discomfort or irritation. Air purifier should be running at high speed or maintenance checked.
Dark red Hazardous	Hazardous air quality	0.3 µm > 1000 0.5 µm > 500 1.0 µm > 300	PM ₁ > 40 PM _{2.5} > 100 PM ₁₀ > 200	Very poor air quality, possibly due to smoke, outdoor smog, or heavy dust. Immediate action recommended: increase ventilation, use HEPA filtration, and limit exposure.

Summary interpretation

- **Blue / Green:** Normal, healthy indoor air
- **Amber:** Early warning - rising particles or moderate pollution; indicates pollution from indoor sources, poor outdoor air, or activity changes
- **Red / Dark red:** Unhealthy levels - likely visible dust, odour, or haze. Strong ventilation or filtration needed