

## Air Quality Index

The AQI, calculated in the frame of Bulgarian Chemical Weather Forecast System, ver.3, follows the UK Air Quality Index as described in the ETC/ACC report, to be find at [http://acm.eionet.europa.eu/docs/ETCACC\\_TechPaper\\_2005\\_5\\_AQ\\_Indices.pdf](http://acm.eionet.europa.eu/docs/ETCACC_TechPaper_2005_5_AQ_Indices.pdf). The only difference is that the hourly values of all pollutants are used in the calculations.

### United Kingdom: Air Quality Index

(source: <http://www.airquality.co.uk/archive/standards.php#band>)

### Air Pollution Bandings and Index and the Impact on the Health of People who are Sensitive to Air Pollution

Banding	Index	Health Descriptor
Low	1	Effects are unlikely to be noticed even by individuals who know they are sensitive to air pollutants
	2	
	3	
Moderate	4	Mild effects, unlikely to require action, may be noticed amongst sensitive individuals.
	5	
	6	
High	7	Significant effects may be noticed by sensitive individuals and action to avoid or reduce these effects may be needed (e.g. reducing exposure by spending less time in polluted areas outdoors). Asthmatics will find that their 'reliever' inhaler is likely to reverse the effects on the lung.
	8	
	9	
Very High	10	The effects on sensitive individuals described for 'High' levels of pollution may worsen.

### Boundaries Between Index Points for Each Pollutant

	O3		NO2		SO2		CO		PM10	
	µg/m <sup>3</sup>	ppb	µg/m <sup>3</sup>	ppb	µg/m <sup>3</sup>	ppb	mg/m <sup>3</sup>	ppm	µg/m <sup>3</sup>	TEOM
1	0-32	0-16	0-95	0-49	0-88	0-32	0-3.8	0.0-3.2	0-21	0-16
2	33-66	17-32	96-190	50-99	89-176	33-66	3.9-7.6	3.3-6.6	22-42	17-32
3	67-99	33-49	191-286	100-149	177-265	67-99	7.7-11.5	6.7-9.9	43-64	33-49
4	100-126	50-62	287-381	150-199	266-354	100-132	11.6-13.4	10.0-11.5	65-74	50-57
5	127-152	63-76	382-477	200-249	355-442	133-166	13.5-15.4	11.6-13.2	75-86	58-66
6	153-179	77-89	478-572	250-299	443-531	167-199	15.5-17.3	13.3-14.9	87-96	67-74
7	180-239	90-119	573-635	300-332	532-708	200-266	17.4-19.2	15.0-16.5	97-107	75-82
8	240-299	120-149	636-700	333-366	709-886	267-332	19.3-21.2	16.6-18.2	108-118	83-91
9	300-359	150-179	701-763	367-399	887-1063	333-399	21.3-23.1	18.3-19.9	119-129	92-99
10	360 or more	180 or more	764 or more	400 or more	1064 or more	400 or more	23.2 or more	20 or more	130 or more	100 or more

The overall index describes air pollution on the basis of the highest band for any individual pollutant.

In addition, images of the dominant pollutant in AQI (the pollutant of the highest band) are presented in the System.