

CASE STUDY IBPA

CLINIC HOSPITAL CLEAN ROOMS

Thoracic and Respiratory Unit
Intensive Surveillance BOX
Barcelona
Spain



**ISO
8**

ISO
INITIAL

**ISO
6/7**

ISO WITH
IBPA®

**%
50,3**

TVOC
REDUCTION

**%
77,5**

FORMALDEHIDE
REDUCTION

OBJECTIVES & SOLUTIONS:

- Despite having an H14 filter at the head-end and terminal F9, it **does not meet the required ISO7 classification** (ISO 14644-1).
- TVOC and HCHO levels are very high**, resulting in a "Nonconformance".
- The box is NOT properly overpressurized as its mandatory (ISO 14644-3)** with respect to the dirty zone, nor is the dirty zone with respect to the hospital. If so, it would have been classified as ISO6.

The aim is **to improve indoor air quality with IBPA®**, by retrofitting into the existing HVAC system, **without construction work or stopping the facility.**

RESULTS:

After complete air renewal (1h), with IBPA®,

ISO 14644-1		INITIAL SITUATION		WITH IBPA®	
ID.		PM > 5.0	PM > 0.5	PM > 5.0	PM > 0.5
1		18.613	704.446	1.053	152.000
2		7.706	484.133	1.626	159.106
3		5.568	293.693	1.146	132.186
4		4.528	228.320	1.093	118.560
5		10.000	264.253	1.533	133.653
6		14.640	311.173	2.013	154.333
AVERAGE:		10.176	381.003	1.411	141.640

PM REDUCTION:	-	-	86%	63%
ISO ACHIEVED:	8	8	6	7
CLASSIFICATION:	8		7	

ZONE	INITIAL SITUATION (ppm)		WITH IBPA® (ppm)	
	HCHO	TVOC	HCHO	TVOC
Corridor	0,67	1,03	0,14	0,41
Box 6	0,53	0,82	0,13	0,51
AVERAGE:	0,60	0,93	0,14	0,46

REDUCTION:	-	-	77,5%	50,3%
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Clasifica: ZWEI Ingeniería, SL - NCB 2/3. D. Javier García Palomo. ID. Informe: SL-5742.