

**Formaldehyde Vapor
Breakthrough Indicator Sticker
HCHO BTIS**

(PN: 140-0000)



Manual



1. Application

The Formaldehyde BTIS (PN: 140-0000) is qualitative (yes/no) colorimetric indicator for the saturation and end-of-service life of ductless hood filters. The Indicator is designed to provide real-time indication of the breakthrough of formaldehyde vapor.

2. Specifications

- | | |
|------------------------------|--|
| a. Weight: | 0.4g (0.02oz) |
| b. Dimensions: | 2.8mm (0.11in), ϕ : 31.8mm (1.25in) |
| c. Operating temperature: | -20°C to 55°C (-4°F to 131°F) |
| d. Operating humidity: | 5% RH to 85%RH |
| e. Minimum detectable limit: | 0.3ppm•hr at 30 cm/sec face velocity |
| f. Color change: | Light brown to dark blue |
| g. Storage temperature: | 4°C to 25°C, (39°F to 77°F) |
| h. Shelf life: | 1 year at 4°C to 25°C, (39°F to 77°F) |
| i. Service life: | 1 year |

Cross interferences: Acrolein and aldehydes found in cigarette smoke react with approximately the same sensitivity. The formaldehyde breakthrough indicator sticker was exposed to atmospheres containing at least two times the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for the following substances: alcohols (methanol, ethanol and isopropanol), aromatic hydrocarbons (benzene, toluene and xylene), halogenated hydrocarbons (chloroform, methylene chloride and carbon tetrachloride), ammonia, carbon monoxide, chlorine, glutaraldehyde, hydrogen sulfide, nitrogen dioxide, phenol and sulfur dioxide. These substances showed no effect on the performance of the formaldehyde breakthrough indicator. No other interferences are known.

3. Operating Instructions

- Ensure that packaging pouch is intact.
- Open packaging pouch by tearing off the top part from one of side notches
- Remove indicator sticker from the packaging pouch.
- Peel off the protective liner to expose the bottom adhesive (Figure 1).



Caution: Do not touch bottom adhesive or exposure area

- Hold the sticker from the edges, as shown in Figure 2, and place it on center clean area of the filter's outlet with the reading area (glossy surface) of the sticker facing up.
- Press firmly to adhere sticker to the filter's outlet Figure 3.
- Replace filter when the reading area of the indicator changes color to blue.

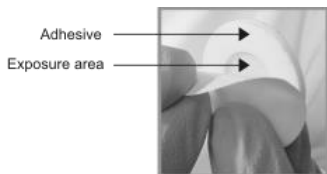


Figure 1



Figure 2



Figure 3