

# Tobacco Smoke Check™



## Air test to detect residual Tobacco Smoke in indoor environments

While tobacco smoke contains over 4,000 chemical compounds, many of these chemicals can also be emitted by multiple sources, or are at such low levels that they can't be monitored, or are not volatile enough (like nicotine) to stay in the air for very long. Thus, the ability to predict that tobacco smoke is present in the air, especially after smoking activity has ceased, becomes a much more difficult task. However, by utilizing sophisticated sample collection and analysis methodologies with detection limits in the 0.1 ng/L range, Tobacco Smoke Check™ from Prism Analytical Technologies is able to isolate specific chemical markers that have been determined by recent leading edge research to be present when tobacco is or has been burned. This makes it an invaluable test for anyone wanting to know if an apartment, home, or house they're planning to occupy can be considered a smoke-free environment. It is also beneficial for life insurance companies who want assurance that their applicants are living in an environment free from the effects of secondhand smoke.

Tobacco Smoke Check™ examines a submitted air sample for the presence of certain chemical compounds that are used as surrogates, i.e., tobacco smoke marker compounds, for the thousands of chemical compounds present in tobacco smoke. Tobacco smoke marker compounds include, but are not limited to, 2,5-Dimethylfuran, 3-Ethenylpyridine, and Nicotine. These marker compounds could indicate the presence of tobacco smoke when they are present above the detection limit.

For the purposes of Prism's Tobacco Smoke Check test, tobacco smoke is defined as secondhand smoke or environmental tobacco smoke (the mixture of smoke generated by sidestream smoke, i.e., the burning end of tobacco products, and the mainstream smoke exhaled by smokers), as well as thirdhand smoke or stale tobacco smoke (the smoke residue that has off-gassed into the air and is still present after smoking has ceased).

### Features

- ▼ **Detects presence of secondhand and thirdhand tobacco smoke in indoor air**
- ▼ **Examines air sample for tobacco smoke marker compounds**
- ▼ **Low detection limit: 0.1 ng/L**
- ▼ **One sample covers up to 2,000 sq. ft. area**

### Applications

- **Enforcement and validation of smoke-free policies:**
  - **Hotels**
  - **Apartment buildings**
  - **Senior living centers**
  - **Rental car companies**
  - **Restaurants**
  - **Offices/commercial buildings**
- **Ideal for asthmatics or anyone concerned with exposure to tobacco smoke**
- **Life insurance companies needing proof of non-smoking applicants**

## Literature References

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