

## VOCs From Construction and Remodeling

Indoor air quality is generally compromised during time periods involving indoor construction projects and/or remodeling jobs. Usually the adhesives, glues, and treatment processes (painting, varnishing, etc.) used in these projects are the main culprits in adding to the VOC “load” in the area. Some materials of construction, such as drywall, wood, tile, and stone, usually do not significantly off-gas, though unfinished wood naturally emits formaldehyde and terpenes. Other materials, such as laminates, veneers, carpeting, and vinyl materials can off-gas significantly.

Specific VOCs associated with materials of construction that may appear in an indoor air quality report include: toluene (adhesives, caulking, and spray paints); methylene chloride (paint and varnish removers); tetrahydrofuran (THF) (PVC pipe construction); benzene and xylenes (solvents, paints); chlorofluorocarbons, butane, isobutane, pentane, and 2-methylpentane (blowing agents in spray products); and glycols, glycol ethers, Texanol A and B (no VOC and low VOC paints). Broad ranges of VOCs can also be observed from the use of light solvents, paint thinners, oil-based paints, and floor finishes, as examples.

The lingering impact of VOCs post-construction will depend in part on the amount of ventilation available and the ambient temperature (i.e., higher temperatures result in increased rates of off-gassing, meaning that higher concentrations of VOCs are present at higher temperatures). Regardless, VOC levels can remain elevated for months after completion of the project and will eventually dissipate over time. Care should be taken to understand the health effects of any product used indoors.

### About Prism Analytical Technologies, Inc.

Prism Analytical Technologies, Inc. is a leading consultative air testing laboratory in the United States that is devoted to the chemical identification and analysis of contaminants in the air. We are a recognized leader in the development and deployment of ambient air testing methodologies for Fortune 100 and 500 companies, industrial hygienists, and environmental consultants. Prism's science-based technologies and wide range of air testing support help clients solve indoor air quality, process control, industrial, and environmental challenges.