The Method

Formaldehyde Reduction Test with AFM Safecoat Zero VOC paints

Primer was applied with 1.2ml / 0.01 sq.mtr (which is equivalent to 336 sq.ft/gal)

Safecoat Zero VOC paint was applied a day later with same coverage.

Another coat was applied two hours later with same coverage.

One week later, formaldehyde emissions were tested with Yangisawa Sensors and Flux Monitor. Emissions can be read via either Desiccator (mg/L) or Small Chamber (µg/m²/hr) methodology.

The Results

Pearl

Formaldehyde outgassing reduced by **100%** in this experiment

Uncoated MDF surface emitted 1.926 mg/L or 126 µg/m²/hr
Safecoat coated MDF surface emitted 0.000 mg/L or 0.00 µg/m²/hr

Semi Gloss

Formaldehyde outgassing reduced by **98.1%** in this experiment

Uncoated MDF surface emitted 2.412 mg/L or 162 µg/m²/hr
Safecoat coated MDF surface emitted 0.047 mg/L or 3.24 µg/m²/hr

Eggshell

Formaldehyde outgassing reduced by **94.6%** in this experiment

Uncoated MDF surface emitted 1.863 mg/L or 121 µg/m²/hr
Safecoat coated MDF surface emitted 0.100 mg/L or 6.83 µg/m²/hr

Flat

Formaldehyde outgassing reduced by **92.2%** in this experiment

Uncoated MDF surface emitted 3.317 mg/L (or 230 µg/m²/hr)
Safecoat coated MDF surface emitted 0.259 mg/L (or 17.6 µg/m²/hr)

Any system which can reduce harmful emissions by over 90% makes the indoor environment much safer and less toxic, and the overall chemical load of a space becomes much more tolerable for the occupant. This is why so many chemically sensitive individuals who have painted a room with toxic paint are able to repaint with Safecoat and are then able to live in the room once again.

AFM safecoat

The Method

Formaldehyde Reduction Test with AFM Safecoat Clear Sealers

In this analysis, three coats of each sealer were applied to the right side of MDF (medium density fiberboard). The left side was left uncoated. After a seven day curing period, the board was measured for formaldehyde emissions with Yanagisawa Sensors.

Safecoat Safe Seal

Safecoat Hard Seal

Safecoat Polyureseal BP
(Satin Finish)

Safecoat Acrylacq
(Satin Finish)

The Results

Safe Seal

Formaldehyde outgassing reduced by **100%** in this experiment

Uncoated side emitted 1.043 mg/L of formaldehyde, which is in the E1± grade. The Safecoat Safe Seal side did not emit at all, with a 0.000 mg/L reading (note the effective range scale).

Safecoat Safe Seal stops the outgassing of formaldehyde by 100% in this experiment.

Poly BP

Formaldehyde outgassing reduced by **100%** in this experiment

Uncoated side emitted 1.477 mg/L of formaldehyde, which is on the very high end side of E1± grade. The Safecoat Polyureseal BP side did not emit at all, with a 0.000 mg/L reading (note the effective range scale)

Safecoat Polyureseal BP stops the outgassing of formaldehyde by 100% in this experiment.

Acrylacq

Formaldehyde outgassing reduced by **97.7%** in this experiment

Uncoated side emitted 1.371 mg/L of formaldehyde, which is on the very high end side of E1± grade. The Safecoat Acrylacq side emitted only 0.032 mg/l, which is on the very low end of Super E0± grade.

Safecoat Acrylacq stops the outgassing of formaldehyde by 97.7% in this experiment.

Hard Seal

Formaldehyde outgassing reduced by **96.2%** in this experiment

Uncoated side emitted 1.414 mg/L of formaldehyde, which is on the very high end side of "E1" grade. The Safecoat Hard Seal side emitted only 0.053 mg/L which is on the very low end of Super E0± grade.

Safecoat Hard Seal stops the outgassing of formaldehyde by 96.2% in this experiment.

Any system which can reduce harmful emissions by over 90% makes the indoor environment much safer and less toxic, and the overall chemical load of a space becomes much more tolerable for the occupant. This is why so many chemically sensitive individuals who have coated a floor or furniture with toxic finishes are able to recoat with Safecoat and are then able to live in the room once again.

Notes: Yanagisawa Sensors and HCHO Flux Monitor are manufactured by Nippon Living Co., LTD. Effective measurement range is from 0.011 – 2.50 mg/L. Emission readings were taken with Desiccators Methodology (mg/L) for MDF grade certificates. Standard industrial MDF sample boards were used in this analysis.

AFM safecoat