

VOCs (VOLATILE ORGANIC COMPOUNDS)..... ARE THEY ALL “BAD”?

In recent years architectural coatings have been subjected to increased regulatory scrutiny. In some countries they have undergone dramatic changes in composition with water-based systems replacing solvent-based applications. Again, in many countries, coating manufacturers must indicate the VOC content of their coatings. Consumers have come to rely on these numerical values. Ideally these numerical values should allow for easy comparison. In practise however it is not so straightforward. The existence of “exempt” compounds and variable amounts of water (a solvent) in coatings may result in a significant difference between “actual VOC” and “regulatory VOC”.

If a particular coating "covers" but does not "hide" sufficiently, the consumer will repeat the application with additional paint. In such a case, the true VOC content of the paint becomes effectively multiplied by the number of litres used to attain satisfactory hiding of the substrate. Does a smaller volume of one type of coating (e.g. solvent-based) generally provide better hiding than a larger volume of another type of coating (e.g. water-based) and thus some sort of VOC savings?

Green Star – Compliance Criteria - VOC

Questionable criteria for cleaners, care products and furniture treatments.

There is no distinguishing between solvents, if hazardous for the human health or not. Indoor pollutants are said to be VOC`s with a boiling point below 250°C. But whereas these compounds evaporate rather quickly, the SVOC`s (semi-VOC) with a boiling point above 250°C persist in the interior and are emitted only very slowly. Inhabitants of the painted apartments will inhale those pollutants for years instead of days in case of VOC`s.

Furthermore, by excluding such products, only synthetic water-borne paints will be used in the future. That means with these paints all indoor polluting additives, plasticizers and preservatives will be brought into our living rooms, together with synthetic resins blocking the water vapour permeability of the surfaces.

When calculating that a large majority of Australians are allergy-prone people, and by following a policy to bring even more synthetic hazardous chemicals in our living spaces and excluding the natural products, this number will increase in the future.

But without any natural solvents, what were the other possible options?

Water – borne paints/varnishes could be an alternative, however this usually means that a whole range of chemicals have been added to the product to replace the functions carried out by the synthetic solvent.

By using all those necessary additives, you are formulating a product, which contains a high number of chemicals, which do not evaporate quickly, but stay in the dried film. There it is off gassing for a long time and people living in such a surrounding will inhale those toxic chemicals over a long period of time. This could create asthma and other diseases of the bronchial tract. Just because you do not “smell” the “new paint smell” does not mean that it is not off gassing.

Natural solvents are not always the bad guys.

The most harmless organic solvent we know are the isoaliphates. They cannot be absorbed by the human body, however should still be treated with care. . Isoaliphates have no sensitizing effects. They are used in the production of cosmetics and for the cleaning of food. Moreover, after the drying process all solvent is evaporated and does not affect your indoor climate anymore.

A ban on products using harmless solvents would be of no benefit to the public.

LIVOS and VOC – Volatile Organic Compounds

The use of solvents in some of our products (mainly the timber oils) is necessary as a carrier of the binding agents deep inside the wood pores. However, LIVOS only uses solvents that provide minimum risks to human beings and the environment.

Those are Isoaliphates and orange oil Orange oil is used only in food grade quality, i.e. with a very low content of oxidised Terpenes, which are known to be responsible for allergic reactions. Nevertheless we have to fulfil the requirements of the European and international laws, e.g. the European VOC-Directive that regulates certain limits of VOC contents in paints and lacquers. We are highly concerned about the health of our customer, so we have to get more into details, making compromises for their benefit

For persons who are especially sensitive to Terpenes, we offer products without orange oil and other essential oils.

The issue is the type of VOC not how much VOC.

As many are aware the VOC issue is a complex one. However, one must be aware that it is not the VOC itself, being the bad chemical, one has always to consider, which kind of chemical one is looking at. Unfortunately as yet, Australian products do not regulate to have a full ingredients list of each product made available for consumers and at times it is difficult to extract useful information from manufacturers. At times this may causes more confusion however it is vitally important to weed out false “green” claims. Ring up a shop and ask what “Low VOC” or “water based” means. What are the differences between synthetic and natural products?

It may not always be easy to source out this information, however such information and the range of low VOC and natural paints and finishes is growing rapidly, making them more accessible than ever.

“There are many shades of Green” DR

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