

## Colorplas Technical Bulletin

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### Background

Styrene is by far the most common reactive vinyl monomer used in the UPRs industry. This can be explained due to its wide availability, rigid structure, dissolution capacity, low viscosity, and low cost.

Despite the forementioned benefits of styrene which makes it as a desirable commercial choice, it is classed as a hazardous air pollutant (HAP) by the environmental protection agency and recent studies by the USA's Department of Health and Human Services have demonstrated that styrene is "reasonably anticipated to be a human carcinogen". Exposure to styrene leads to effects on the central nervous system, resulting in headaches, fatigue, dizziness, confusion, and vomiting amongst others. Furthermore, styrene is an extremely volatile and flammable liquid, meaning it must be handled and stored correctly

### Big focus: Styrene Free Gelcoats

Considering all the concerns listed above, "Styrene" and "Alternatives for Styrene" has undoubtedly become most widely spoken topics at present among the wider coatings industry and has seen a need to move away from the use of styrene, with competitors offering styrene-free, and low styrene alternatives.

As a responsible company which respects the global trends, Colorplas Ltd has taken an initiative to make our gelcoat development approach a little Greener. Under the slogan, "Let's go Green", the company has invested heavily on the following two Research and development projects (which fall under green gelcoats umbrella) to investigate on alternative materials to styrene with the aim to reduce or eliminate exposure in the workplace.

### Current State of Art

We are currently in the middle of developing a series of Isophthalic, Orthophthalic and ISO-NPG gelcoats with low, ultra-low and zero styrene percentages. The company feel very positive about the styrene free technology and will release these products under the latest "Green line". Watch this space.