

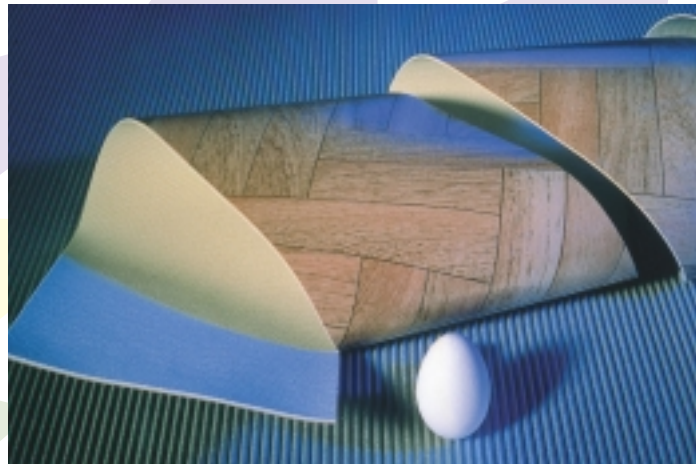


Plasticised PVC Floors – A First for Comfort, Safety and Style

Plasticised PVC makes comfortable, safe and stylish floors for buildings of every size and use all over the world and at a price within the reach of millions. These floors are no less than a quiet revolution dependent on phthalates.

A source of flexibility and much more

Flooring manufacturers combine phthalates with PVC powder to make a soft and flexible finished product. Thanks to phthalates, manufacturers have exact control over production needs, can keep costs down and can achieve requirements in specific areas as diverse as design and hygiene.



How plasticised PVC floors are produced

Manufacturers produce most PVC floors by a process known as 'plastisol spread coating'. In this, phthalates are essential to producing a liquid paste or 'plastisol', from solid PVC particles. The paste is applied in several layers so that the floor is literally 'built up'. Typically these include a foam core, a decorative layer and a clear protective wear layer.

Manufacturers use several different types of phthalate and each one has its own

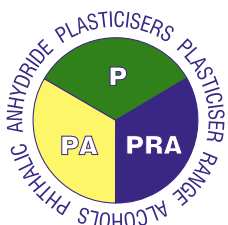
particular properties. Diisononyl phthalate (DINP), di-(2-ethylhexyl)phthalate (DEHP), benzylbutyl phthalate (BBP) and diisooheptyl phthalate (DIHP) are all used for floors.

Plastisols prepared with these phthalates are rapidly fused so that the layers can be applied at a high production rate. This ensures that the whole process is cost-effective. These plasticisers also enable the plastisols to be processed at a range of temperatures, while giving consistent, high quality foams. Thanks to these

integral foams, soft PVC floorings deaden sound, have a pleasing softness under foot and yet are hard wearing.

Manufacturers can build up complex patterns and three-dimensional effects through these layers and offer more choice of styles and effects than would otherwise be possible. The end results are colourful, smooth and shiny surfaces that are modern and eye-catching.

Aesthetic value is not the only advantage of soft PVC floors. The smooth, tough surface of the upper wear



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layer prevents dust and dirt from building up and microbes breeding. In sensitive areas such as hospitals and clinics the hygienic quality of soft PVC reduces disease and infections. In the home, too, PVC floors in kitchens and bathrooms help to protect our health every day.

In ecological terms, the robust surfaces of soft PVC cut down the need for cleaning and the use of polish. They are a natural choice in schools, offices and public buildings with large floor areas, where robustness and low maintenance are vital.

PVC floors are outstandingly durable and typically last for up to 20 years of intensive

use. Over all this time, despite large daily temperature changes, phthalates guarantee the flexibility of the application. They also resist degradation and discolouring from exposure to ultra violet (UV) light.

Phthalates and safety

Certain groups have in recent years alleged that the migration of phthalates from flooring may pose a threat to the environment or human health.

These allegations are not based on objective scientific facts. Whilst phthalates can migrate out of PVC flooring (for example, during cleaning), the impact on the environment is negligible.

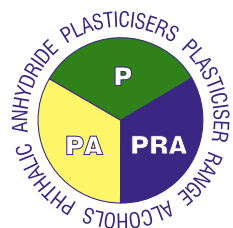
Phthalates biodegrade rapidly in almost all conditions, except for oxygen-less (anaerobic) sediments in water. However, recent studies have shown no adverse effect on the organisms which live in these sediments.

Concerns have also been expressed that phthalates in PVC floors may provoke asthma in children. This is not supported by the weight of scientific evidence and also runs counter to experience over many decades of PVC use in homes, hospitals, offices and public institutions. Indeed, PVC is frequently used in environments where there is a need to specifically reduce dust which can aggravate asthma.

The European Council for Plasticisers and Intermediates represents an industry which is accountable and is committed to the global chemical industry initiative 'Responsible Care'.

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