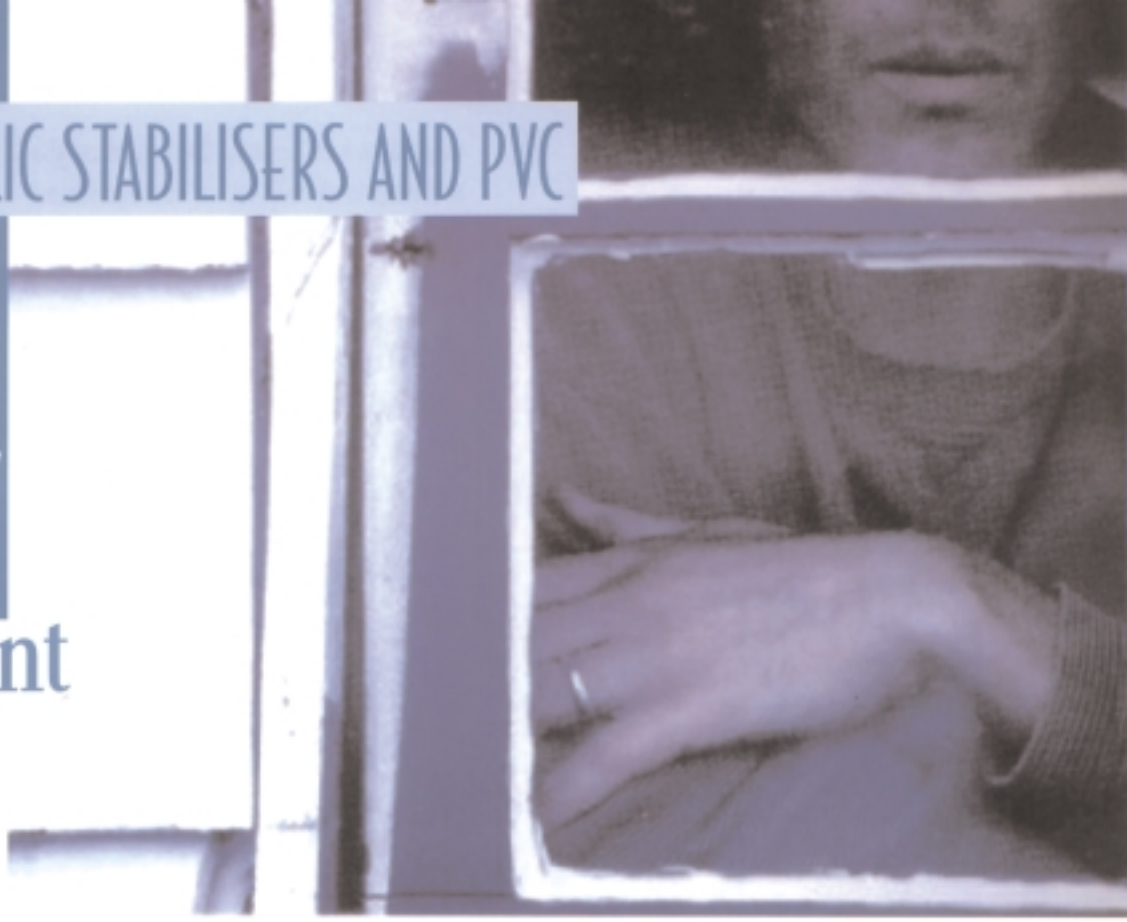
OVERVIEW • NOTE 5 •

METALLIC STABILISERS AND PVC

the *cracks* in the argument



Science Supporting PVC in the Environment

It is very easy to get heavy when it comes to issues which affect the environment. There has been continuing comment about the use of heavy metals in all kinds of products and PVC has been accused of presenting a danger to those who use it. This Overview Note aims to give the facts on why the use of heavy metal-based additives is safe.

> "Lead based stabilisers form only a small proportion of the PVC formulation and are strongly bound into the polymer matrix."

PVC has a number of additives without which literally hundreds of other commonly used products simply would not exist. These additives have helped PVC to become one of the most versatile and cost-efficient materials in the world.

Why use Metal Based Stabilisers?

Stabilisers are necessary in all PVC formulations to prevent decomposition by heat and stresses during processing. They can also give PVC enhanced resistance to daylight, weathering and heat ageing and have an important influence on the physical properties of the PVC formulation – ultimately extending the life of PVC products.

The choice of stabiliser will depend upon the end-use application as well as a number of factors including the technical requirements of the PVC product, regulatory approval requirements and cost.

The main constituents of stabilisers can be metal soaps and metal salts or organometallic compounds. The main metals from which these compounds are derived are lead, tin, barium/zinc or calcium/zinc combinations.

The use of stabilisers is closely regulated within the EU for food contact and medical use and the permitted levels of allowed materials which can be used in these PVC applications are set out in official EU and National Directives.

Lead

Elemental lead is not used as a PVC additive. Lead 'salts and soaps' are used in PVC applications to give very good processing and weatherability characteristics.

PVC
√Good for Life...
√Good for the Environment