

LEAD FREE STABILISERS FOR PVC CABLES

Polyvinyl Chloride (PVC) is known to degrade upon heating. Stabilisers are used to limit the degradation. Traditional stabilisers containing Lead (Pb) were used. CBI-electric: african cables now offers Lead Free PVC as the norm. This bulletin serves to highlight the benefits of switching to lead free stabilisers

Because of its inherent excellent dielectric properties, Polyvinyl Chloride (PVC) has proved to be a particularly effective polymer for use in cable insulation, bedding and sheathing. The insulation characteristics of PVC degrade significantly with higher temperatures, and these can be exacerbated further by the inclusion of moisture and polar components. In order, to counteract the degradation, traditionally lead stabilisers have been added to the PVC compounds.

The handling of lead stabilisers present exposure hazards, and comes within the scope of prescribed practice and regulation limits for occupational exposure of workers to lead (eg in South Africa 40µg/100 ml).

In South Africa, there is no legislation demanding that the wire and cable industry, should switch to lead free stabilisers. However, CBI-electric: african cables has decided to adopt Lead Free stabilisers, in line with other industries who have switched to lead free petrol and lead free paints. The cost premium of using Lead Free stabilisers is absorbed.

Lead Free Stabilisers has been introduced into all PVC compounds produced at CBI-electric: african cables from May 2005.

Reference

- Occupational Health and Safety Act and Regulations (85 of 1993)

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