

Panduran pen

Indicator for aluminium and alum $Al_2(SO_4)_3$ with panduran



Description:

Since the 19th century machine-made paper and board material was generally sized with alum (aluminiumsulfate $Al_2(SO_4)_3$). This has been the main reason for premature decay of paper.

Material characteristics/ application:

Panduran is an eriochrom dye which has a metallic reaction with Al^{+++} (aluminium ions). If no reaction takes place then the colour of the pen remains yellow. If a metallic reaction takes place, then the colour changes to blue and then to violet. The reaction is not influenced by the pH value of the paper being tested.

Boards and papers with alum content are principally not suitable for long-term archival storage. Permanent paper and board material must fulfil the following criteria:

- pH > 7.3 acid-free, no alum content
- 100 % purified (bleached) cellulose or cotton pulp
- 2 – 3 % alkaline buffer (e.g. calcium carbonate or magnesium carbonate).

After using the pen several times it is important you clean the felt pen tip before it is again used for testing. All you need to do is to use the pen on normal neutral paper and then it can again be used for testing.

The panduran pen has a shelf life of 24 months if stored in a cool place.

Further information, such as our „Quality Guarantee“, certificates of independent testing institutions and information regarding application methods and instructions are stated on our website klug-conservation.com.