

## *Read, Reflect and Learn - 002; Aug 2014*

# *ACID FREE* *- Misleading?*

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As framers we will be aware of the term *Acid Free* but do we really understand what this term means and might one consider it as being slightly misleading? We come across the term in most publications and in the glossary of the Guild's GCF Study Guide it states '*An imprecise and frequently misleading term, not used in this guide*' Could this be perceived as a indication regarding the use of this term!

In simple terms it is an established fact that acidic paper when exposed to heat and/or light will breakdown and the rate of degradation will be dependent upon exposure. In the early/mid 1900's this was particular concern as to the gradual disintegration of written materials and the damage/deterioration of artwork due to the use of substandard materials; as a result measures were taken to improve the quality of paper. As far as mountboard was concerned a number of decades ago industry standard board was manufactured from plain wood pulp that had a pH value in the acidic range below 7; typically in the range of 4.5 to 5.5.


After much discussion the FATGs Mountboard Standards were published in 2004 which detailed the composition of the three qualities of mount board within the standards. Of interest in each of the three levels under the heading of pH and regarding "*Acid Free*" it states that '*Its use in product specifications must be avoided.*'

The question remains where did the term originate and what does it precisely mean? "*Acid Free*" is essentially a marketing term used to describe, in our case, mount board that has a pH greater than 7. It does *NOT* mean that the board is necessarily free of acid.

Board may be rendered "*Acid Free*" during the manufacturing process by buffering the boards with calcium carbonate (CaCO<sub>3</sub>) the aim of which is to increase its longevity. When added to the pulp CaCO<sub>3</sub> increases its alkalinity by attacking those free acids present that are below a pH value of 7 and generally increasing the pH values to between 7.5 and 9.5. Further, an alkaline environment may be created by the addition of small amounts (2-5% dependent upon manufacturer) of extra CaCO<sub>3</sub>. This is known as the alkaline reserve and its purpose is to ward off the formation of additional acids through '*Off Gassing*' and airborne pollutants such as sulphur and nitrogen oxides. e.g An alkaline reserve of 2% may increase the longevity of paper for at least 100 years.

A final thought; the term “*Acid Free*” does NOT necessarily mean that the board is suitable for either Conservation or Museum quality framing.

Please answer the following questions. Once you have answered the questions keep them safe in your review/PDR.

1. What is the meaning of the following symbol - 
2. How is Acid Free described in the glossary of a number of documents?
3. When artwork on acidic paper starts to breakdown what are the factors that influence degradation.
4. What influenced the initiative to improve the quality of paper?
5. What are the three levels of mountboard in FATGs Mountboard Standards?
6. Where did the term ‘*Acid Free*’ originate and what does it precisely mean?
7. How is mountboard rendered ‘*Acid Free*’ and what does this achieve?
8. What does the introduction of  $\text{CaCO}_3$  achieve when added to wood pulp?
9. What is an Alkaline Reserve and its purpose?
10. Is board that is marked as being ‘*Acid Free*’ suitable for framing at all five levels of framing?