



PS-C004 THE MOISTURE CONTENT OF CONCRETE

INTRODUCTION:

Concrete must be 'dry' before it can be coated. Dry means no running or ponded water is present on the surface and there is no apparent dampness in the concrete.

This does not however mean the concrete is dry enough to paint. The amount of moisture present in the concrete is a serious threat to coatings and can cause blistering. The moisture level must be checked and confirmed to be at acceptable levels before painting.

There are a number of methods using humidity, resistance and chemical means but the simplest method that will give a reasonably accurate indication of the amount of moisture travelling within the concrete is as follows:

PROCEDURE:

ASTM D4263 Standard test method for indicating moisture in concrete by the plastic sheet method. This method involves taping a polythene sheet (100 micron) 460 x 460 millimetres square on to the concrete surface for at least 16 hours. If moisture collects under the plastic sheet during this time, it is an indication that the concrete contains too much moisture for good adhesion. On large areas of concrete this method should be repeated at several points to ensure uniformity throughout the concrete.

NOTE: Full Cure for new concrete – This normally takes approximately 28 days. This gives full cure of the concrete but does not mean that the concrete is dry enough to paint.

It should be understood that even fully cured concrete can contain significant moisture and even though the appearance is that of a dry surface, testing using the ASTM D4263 method often indicates that further time for the concrete to loose enough moisture is required.

Aged concrete pools can adsorb water and this takes many days to be released, we recommend that these surfaces are tested prior to coating also.

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