



If it's hardcore, it's DuraCore!

MOISTURE PROOF

PREPARATION AND INSTALLATION PROCEDURE

Moisture Proof is blue in colour and has been specially formulated to provide the installer the most cost effective method to eliminate the risks and problems associated with subfloor moisture problems. Moisture Proof is a single pack, ready to use (no mixing), deeply penetrating, safe, odourless, easy to apply (simply pour & spread) liquid that allows early site access (foot traffic in one hour). In most cases, it will be ready to accept floor preparation and coverings in 24 hours.

1/ NEW OR EXISTING CONCRETE

Moisture Proof can be applied at the time of concrete pouring, as soon as the surface is hard enough to walk on. It is a superior curing method that doesn't have to be removed and at the same time provides a harder, dust free surface and is a permanent moisture proofing that will allow floor covering installation after 14 days from time of concrete pour. If the concrete is less than 14 days old and it is imperative to proceed, then please contact DuraCore for technical advice and special information.

2/ MOISTURE CONTENT

Moisture content and RH should be 7% or less and 85% or less respectively. Please contact DuraCore for additional technical advice if readings are higher.

3/a CURING MEMBRANES & HIGHLY BURNISHED STEEL TROWEL SURFACES

Check concrete for any evidence of curing compounds and surface porosity. This can be easily done by pouring a little water on the concrete and watch for penetration. If there is no sign of penetration or surface wetting at all, within 60-90 seconds, then the concrete should be mechanically prepared by sanding, grinding etc. Followed by thorough vacuuming to remove the curing membrane and dust to create surface porosity to allow Moisture Proof to penetrate. If you are unsure, please contact DuraCore for further technical advice. (The removal of any curing membrane is of course required for any other product or preparation as described in the Australian Standards.)

3/b

If there is no evidence of the presence of a curing membrane and there is surface porosity, then it is equally important to mechanically prepare the surface by sanding or grinding etc. Followed by thorough vacuuming to expose a clean, sound, open surface, ensuring that all laitance, plaster, paint, dust etc is removed to allow full efficient penetration of Moisture Proof. Of course this is basically a preparation procedure, commonly used every day as a standard practice required by most flooring products and as laid out in the Australian Standards.

4/ CRACKS

Cracks are always a problem for the installer. Too often the client is asking the installer to take risks and responsibility for repairing cracks that should be referred to the engineer or builder for a recommended crack repair procedure. Referring to the engineer or builder will eliminate the responsibility of possible failure from the installer. This is especially the case in regards to structural cracking where the void is full depth of the concrete. In this case, Moisture Proof should be applied first before applying your normal crack repair system. In most cases, cracks are not full depth and are only micro or surface cracking, commonly caused by rapid surface drying or plastic shrinkage, which would be not affect the efficiency or the result of Moisture Proof. It is worth noting that Moisture Proof is not designed or makes claim to fix cracks, however there are many applications where moisture has migrated through cracks of 1 mm (even with hydrostatic pressure present) that have been eliminated permanently. If you do have major cracking and are directed to proceed by the client, we would suggest that you mark a floor plan showing the location of cracks etc and keep it filed - just in case there are some demarcation problems in the future.

5/ COVERAGE & APPLICATION

Moisture Proof has been specifically formulated as a one coat, pour & spread product, keeping cost, convenience and ease of application in mind for the installer. It is ideal for smaller to medium areas and it is recommended that DuraCore's Densi Crete is used and applied by airless spray method for maximum application time savings for the very large areas. Do not dip a brush or broom directly into the Moisture Proof pail as concrete dust contamination will occur which will affect the product chemistry and shelf life. Contact DuraCore for further information and assistance.

**NON-TOXIC * ENVIRONMENTALLY SAFE
USER FRIENDLY**





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PREPARATION AND INSTALLATION PROCEDURE

In most cases, depending on the concrete porosity, one litre of Moisture Proof will treat approximately 4m². Moisture Proof is packaged in 5 or 15 litre containers with re-sealable lids for easy pouring or dispensing. It is important to ensure you achieve the correct coverage rate and it is suggested that measurements are taken and with the larger type areas, that grids are made, to help with accurate product distribution. Most contractors have found it easier to decant into 2 litre measuring jugs and distribute that over 8m² and spread as they go. Naturally you will find a method that works best for you, whichever method you choose, it is important that the correct coverage rate is obtained. It is important that product is applied to achieve surface saturation.

Application can be by pour or low pressure spray (pump up knapsack type). However it is important that the product is distributed evenly by continuous working by soft broom in all directions to ensure the product is presented to all surface profiles. There is no need to put any pressure on the broom as it is only used to distribute the product evenly and if pressure is applied it tends to have the opposite effect in not leaving enough material on the surface.

Allow the material to fully penetrate the surface. If you find that after 45 mins, some areas have totally penetrated and some not, then distribute the excess product over the dry areas with the broom. Please note, on occasions, the concrete may be of poor quality and be very porous. This may require additional product to ensure that there is enough product to complete the capillary chemical gel forming reaction. When applying additional product, apply wet on wet.

HOT & COLD TEMPERATURES

In hot or windy conditions, the concrete surface temperature or wind may dry out the product prematurely before it has a chance to penetrate thoroughly. In this case, it is advisable to mist spray the surface with water and apply Moisture Proof whilst the surface is damp. This also helps with a relaxation of surface tension allowing a more efficient and faster penetration as well as premature evaporation or drying out. Moisture Proof should not be applied if the ambient temperature is below 2 degrees celsius. Moisture Proof is not affected at all by temperature change after 24 hours, not even in freeze thaw conditions.

OLD EXISTING CONCRETE

If there is old existing concrete and the moisture content is higher than 5 or 5.5%, all of the above procedures should be followed. However, there is

normally a problem somewhere (broken pipes, hydrostatic pressure etc.) for old concrete to remain this wet. Contact DuraCore for further information as an additional coat or change of application procedure may be required.

SAFETY PRECAUTIONS

Moisture Proof is water based, safe to use, it contains no VOC, is odourless, completely user and environmentally friendly. It contains no solvents and has the viscosity of water.

CLEAN UP

Clean up with water, however, Moisture Proof is alkaline like so many other materials which are commonly used in the home and building industry, ie. wet concrete, cement mortar, some cleaning materials etc. Moisture Proof should not be allowed to dry on glass or polished aluminum as an etching effect may occur. It is important to cover first, or remove by a water wash before drying occurs.

SHELF LIFE

Unlike so many other products, Moisture Proof has a virtual unlimited shelf life which allows the installer to reseal after each use and have it on hand for use at any time when needed. This saves worrying about waste, being caught out on jobs that require delivery time, or trying to acquire product after hours.

TRAINING

DuraCore offer full product training and installation advice for Moisture Proof and the total DuraCore range of moisture and protection systems. Although we conduct regular installer training sessions at our premises, we can certainly arrange to give installer training sessions at your premises if required.

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PREPARATION FOR FUTURE COATINGS, FLOOR PREP AND FLOOR COVERINGS

As mentioned, Moisture Proof deeply penetrates concrete up to 100mm and beyond. It fills all of the capillaries with a passive, non destructive, colloidal gel, which forms a permanent, non penetrative barrier from within the concrete matrix - stopping moisture migration in or through, including hydrostatic pressure from an outside source. Moisture Proof locks up moisture and purges any excessive moisture or contaminants to the surface. In most cases, it is only a matter of sanding and vacuuming the surface after 24 hours to remove any of these contaminants or excess material which may have dried to expose a clean sound concrete surface. This is also vitally important as it removes any trace of high alkalinity that may affect priming or adhesive materials. This is a common practice that should be adopted at all times when preparing new or existing concrete.

On some occasions, where there has been excessive water used in the concrete or you are trying to lay coverings in 7 days or less after the concrete was installed, you may notice a fair amount of moisture on the surface. Do not be alarmed by this as it shows that Moisture Proof is doing as intended by purging out excess water that is not needed for the hydration process. If left without treatment, it would have to evaporate under normal conditions which may delay installation for months. If there is evidence of excess water on the surface, it may take extra time for the process to be complete and dry out. This happens only rarely and if you have any queries at all, please contact the DuraCore Technical Department for assistance.

The unique formulation of Moisture Proof has been specifically designed to moisture proof concrete and at the same time achieve and maintain an approximate 2mm surface porosity to accept acrylic primers etc that are commonly used in the flooring Industry. After the final sanding and vacuuming of Moisture Proof treated concrete has taken place, you will notice this porosity and the floor is ready to proceed with floor preparation etc. Although, there are many types of adhesives and levelling compounds/repair mediums that are used directly on the prepared surface, some certain water based, hard set type adhesives may require some levelling compound applied first to enable the adhesive moisture content dissipation and correct tack off time.

SURFACE POROSITY

If the concrete is very dense (high quality) in surface and matrix make up, you would normally have to apply some levelling material to accept water borne hard set type of adhesives to allow moisture dissipation and correct tack times whether our material was used or not. In other words, on this type of concrete, because of the size and molecular shape of our material, it would normally penetrate and complete its purpose. After sanding and vacuuming to remove any contaminants that may have been purged, or some excess material that has dried on the surface, you would be left with the same dense surface you started with, which would require some surface prep as previously mentioned. In other words, it is not all about the effect of our product, but also the original density of the substrate.

Whilst we would like to give advice regarding preparation, priming, levelling repair mediums and adhesives, unfortunately, as there are so many variables to be considered in the selection of the correct floor preparation and adhesives required for various floor coverings and specific uses, we strongly suggest that you contact your leading material manufacturers in your state for the correct advice. Legally, we cannot make any suggestions on behalf of any other company as any comment made regarding

this could be misconstrued and lead to demarcation and legal problems in the future.

However, it is worth pointing out that there has been hundreds of thousands of square meters of successful installations carried out with a wide variety of preparation materials, adhesives, coatings and floor coverings from the leading manufacturers of these materials with total success - ranging from large supermarket projects to retail stores and small domestic kitchens.

MOISTURE PROOF HAS BEEN DESIGNED TO GIVE THE INSTALLER THE MOST COST EFFECTIVE MOISTURE PROTECTION SYSTEM AVAILABLE TODAY.

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QUESTIONS & ANSWERS

Can Moisture Proof be applied to wet surfaces?

Yes, providing there is no free or pooled water. This means that you can pressure clean and still apply after the free water is gone.

What coverage rate do I get with one litre?

Approximately 4m² per litre, however, some very porous poor quality concretes may require more product to enable the sufficient chemical reaction to achieve total results.

Will one coat be sufficient?

Yes in the majority of cases. It may require an additional coat where Hydrostatic Pressure is evident or on old concrete where there is unusually high moisture readings. Additional coats must be applied wet on wet.

Can I install on concrete that is less than 14 days old if I am forced to?

Yes, however contact DuraCore for further information and advice.

What is the moisture levels and age of concrete recommended before applying Moisture Proof?

Concrete should be 14 days old , 7% or 85% RH. If figures are out of this range. contact DuraCore for additional information and procedures.

Do I have to remove curing membranes?

Yes, as you would with any other material as laid out in the Australian Standards. Surface must have some porosity to allow penetration. Pour a little water on surface to test for porosity.

Does treated concrete require special primers or preparation before applying floor preparation materials?

Generally no, as most leading brands have been successfully applied. Contact DuraCore or the leading brand Manufacturers for their recommendations. Floor must be sanded and vacuumed to remove all the possibility of alkaline laitance purged, excess dried material or any other contamination.

What is the shelf life and can I reseal the pail for further use in the future?

Moisture Proof has virtually an unlimited shelf life and comes in pails fitted with re-sealable lids for easy dispensing. The long shelf life allows for product to be kept on hand for convenience and just in case an unexpected moisture job comes up. Do not apply by dipping broom or brush directly into the pail as this will contaminate and possibly destroy the chemistry make up. Only pour and spread.

Does Moisture Proof require mixing and special clean up procedures?

Moisture Proof is ready to use, no messy mixing or clean up required. Simply wash with water.

Is Moisture Proof Safe to use?

Moisture Proof is totally user and environmentally friendly, odourless, zero VOC. MSDS sheet available.

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QUESTIONS & ANSWERS

What precautions if any should I take?

As Moisture Proof is alkaline, like so many other products commonly used in the building industry, it may cause some slight surface etching effect on glass or polished aluminum if allowed to dry before rinsing with water. Best to mask or protect surfaces from the product. If contact is made, wipe off with water and dry with a clean cloth.

Will DuraCore assist with technical training and provide site visits if needed?

Yes, DuraCore will provide service, training and assistance to ensure you of successful installations.

How long do I have to interrupt site access and how long before I can walk on the surface?

Normally, the area is trafficable in one hour. Whereas most other systems are closed to foot traffic and general site access for 24 hours and in some cases 72 hours.

Will dropping tools etc on the surface damage the moisture proofing ability?

Unlike many other products that form a topical type membrane that if perforated, it basically renders the system ineffective, Moisture Proof penetrates deep inside the concrete matrix and allows drilling, nailing and surface damage to occur without affecting its moisture proofing performance.

Can I apply adhesives and levelling, repair mediums directly to concrete treated with Moisture Proof?

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As mentioned previously, legally we cannot speak on behalf of other manufacturers and strongly suggest you contact the product manufacturers for their product recommendations for the required purpose, as there are so many different types of adhesives etc manufactured for particular and specific uses.

IF UNSURE ABOUT ANY POINT OR PARTICULAR PROCEDURE, PLEASE CONTACT DURACORE TECHNICAL DEPARTMENT FOR ASSISTANCE AND FURTHER ADVICE

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