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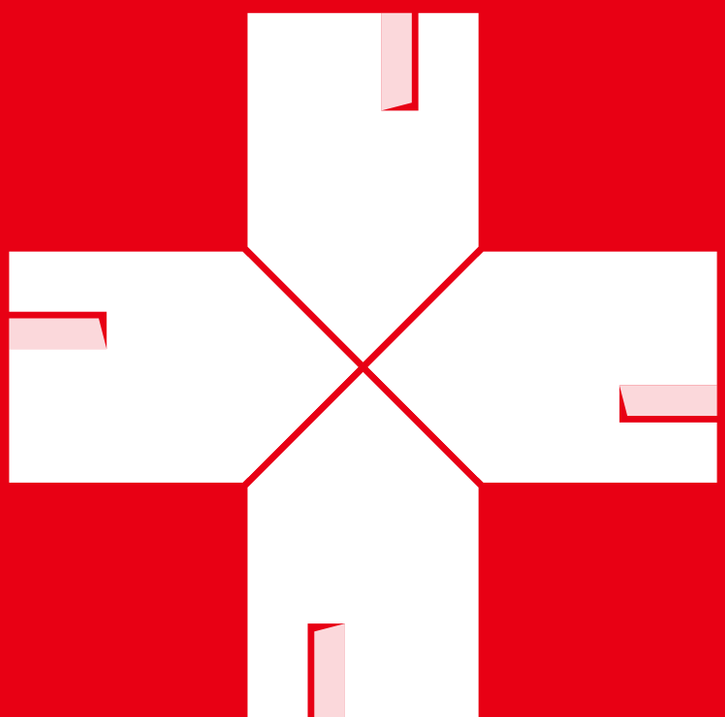
SMARTCARE

EXPERT WATERPROOFING SOLUTIONS



THE SMARTCARE GUIDE TO WATERPROOFING.

SAFEGUARD YOUR HOME'S HEALTH.

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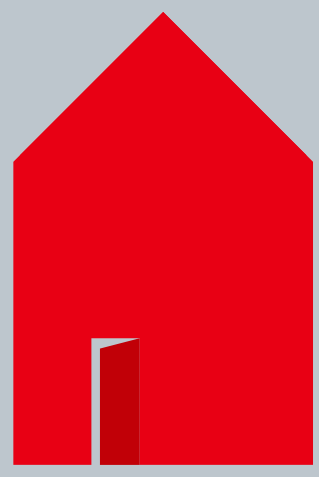


The body is said to be the home of the soul and
you do everything, from early morning jogs,
fancy sounding health drinks and never-heard-before diets,
to keep it healthy.

But what of your home, the house where
you spend most of your life?
Have you done enough to take care of its health?

While water may be an elixir for your body,
it harms your home in more ways than you can imagine.
Leaks, seepage, peeling, structural weakness,
these are only some of the problems your
home faces from water.

In this book, you will find precautions and
solutions that you can take to keep your home safe,
using the SmartCare range of waterproofing products.
These have been specifically designed to help you ensure
your home's lasting health.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Construction Phase

Your idea is finally coming alive - your own home.

But even before you place your first brick, ask yourself this,

have you done everything to ensure the lasting beauty

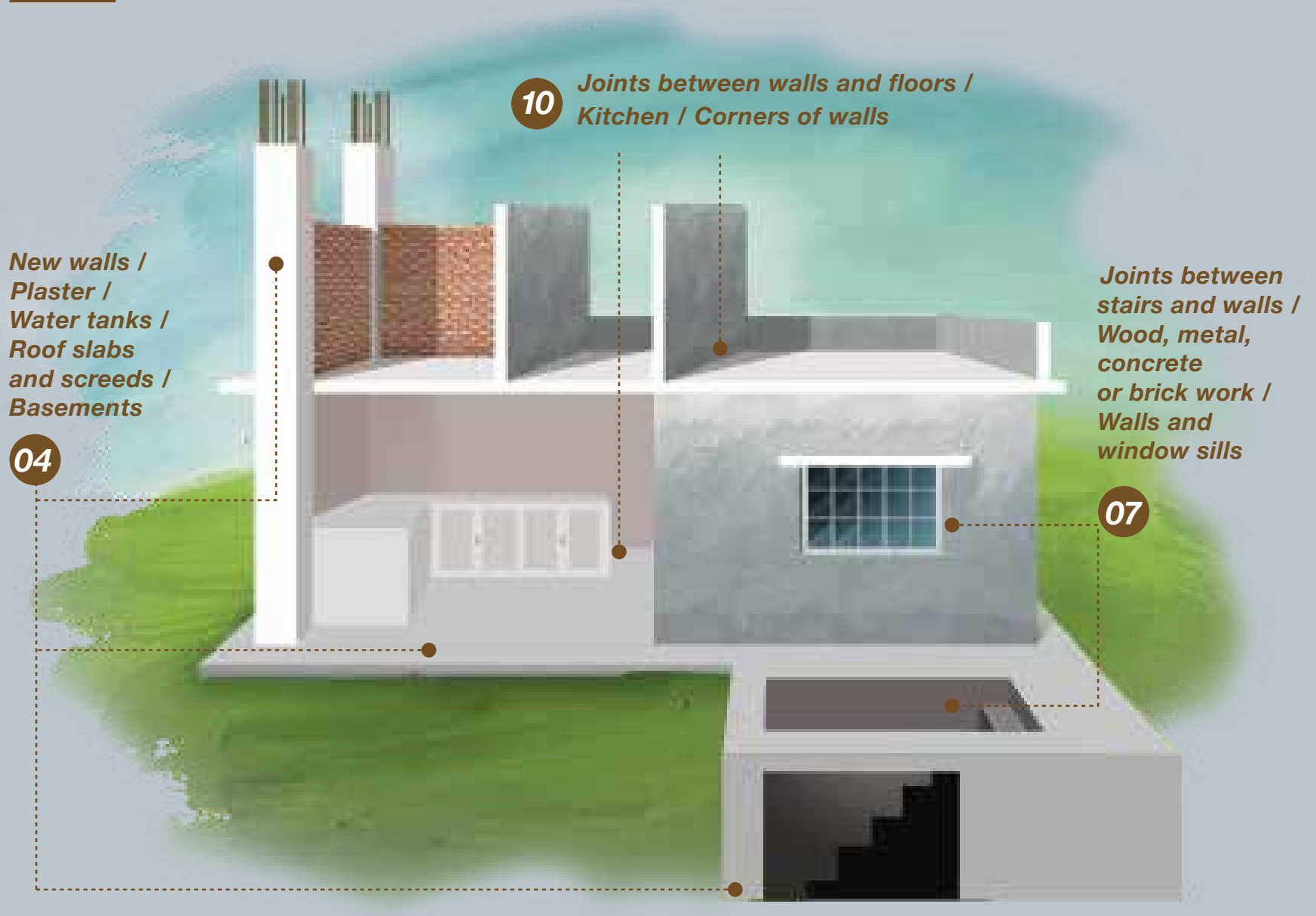
and strength of your home?

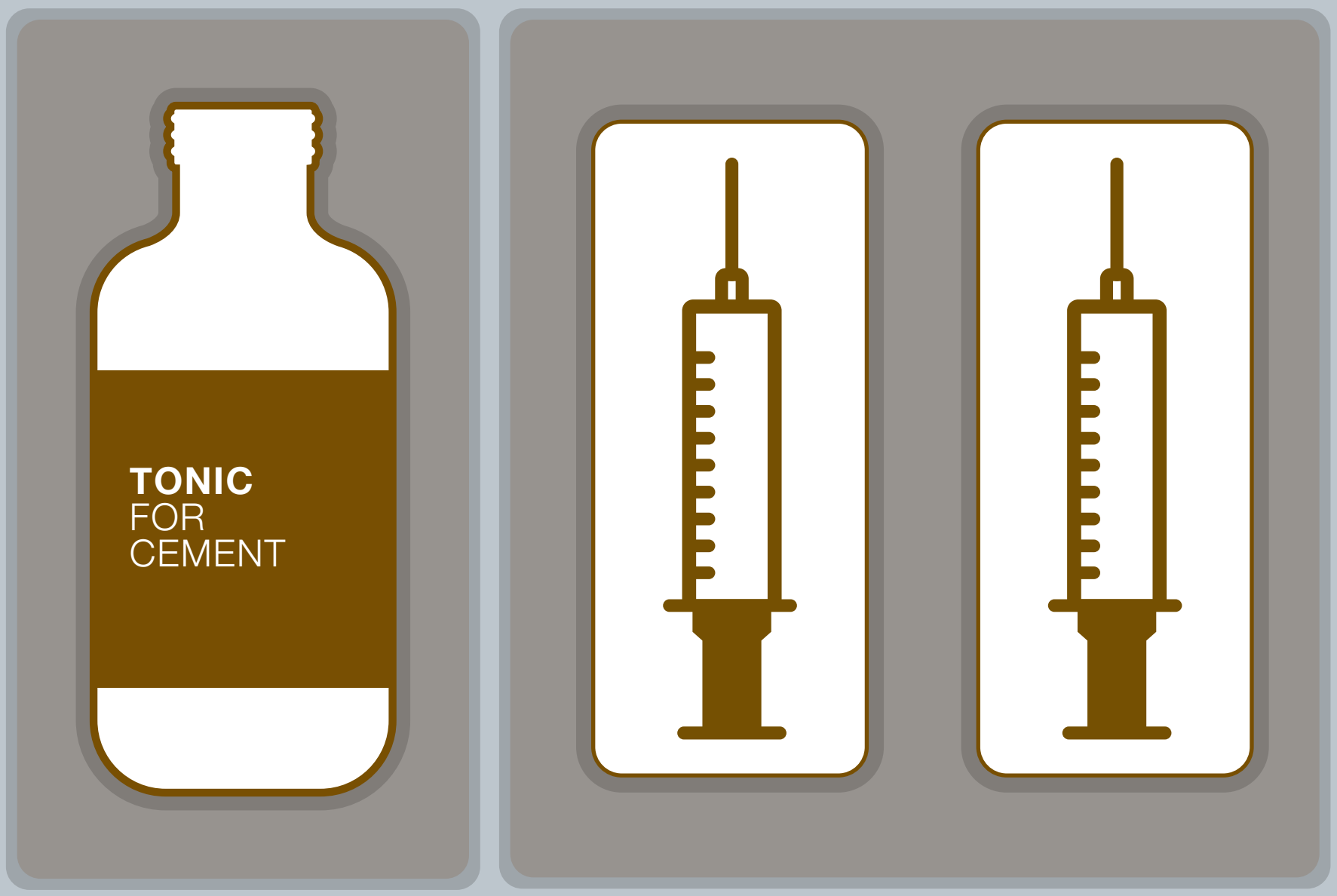
In this section, we tell you all that you need to know

about how you can start safeguarding your home from water,

before painting.

Index





For best results, apply all products after consulting with experts.

Vitalia

Asian Paints SmartCare Vitalia is an integral waterproofing liquid with advanced formulation and superior plasticizing additives for cement-concrete, mortar and plaster.

Areas of Application

1

External and internal plaster

2

Brick laying mortar

3

Concrete and roof slabs

4

Water tanks

5

Basements

6

Bathrooms and drains

7

Water retaining structures

Product Features & Benefits

Standard Compliance:
Exceeds requirement of IS 9103 for water reduction and IS 2645 for water impermeability.

Waterproofing:
Imparts waterproofing to concrete and cement-sand plaster.

Superior Compressive Strength:
Ensures longer lasting walls.

For best results, apply all products after consulting with experts.

SmartCare
EXPERT WATERPROOFING SOLUTIONS

Application Procedure

1

Charge cement and aggregates to concrete mixer as per the mix design.

2

Mix in dry state for 1-2 minutes.
Add 50% to 60% of mixing / gauging water.
Mix for 2-3 minutes.

3

Stir the Vitalia container well before use.

4

Vitalia needs to be added as per the recommended dosage into the remaining mixing / gauging water, then added to the concrete mixer and mixed for another 2-3 minutes.

5

Place the concrete or apply plaster as needed.

6

Cure the applied mortar or concrete as per good construction practices.

NOTE

- **Do not add Vitalia directly to dry mix**
- **Recommended dosage: 100 ml of Vitalia for 50 kg cement**

For best results, apply all products after consulting with experts.

SmartCare
EXPERT WATERPROOFING SOLUTIONS

VITALIA ADVANTAGES

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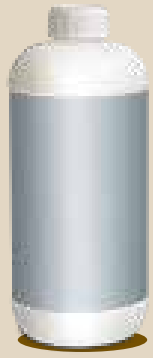
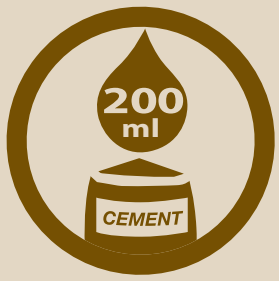
SMARTCARE VITALIA

VS



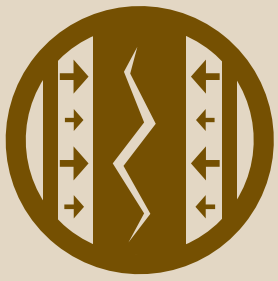
POPULAR COMPETITOR

Lower dosage (100 ml per 50 Kg).



Higher dosage (200 ml per 50 Kg).

Ensures stipulated compressive strength even at double or higher dosage.



Compressive strength reduces with increased dosage.

Excellent workability even with crushed rock sand.

Poor workability when used with crushed rock sand.

SMARTCARE VITALIA

VS

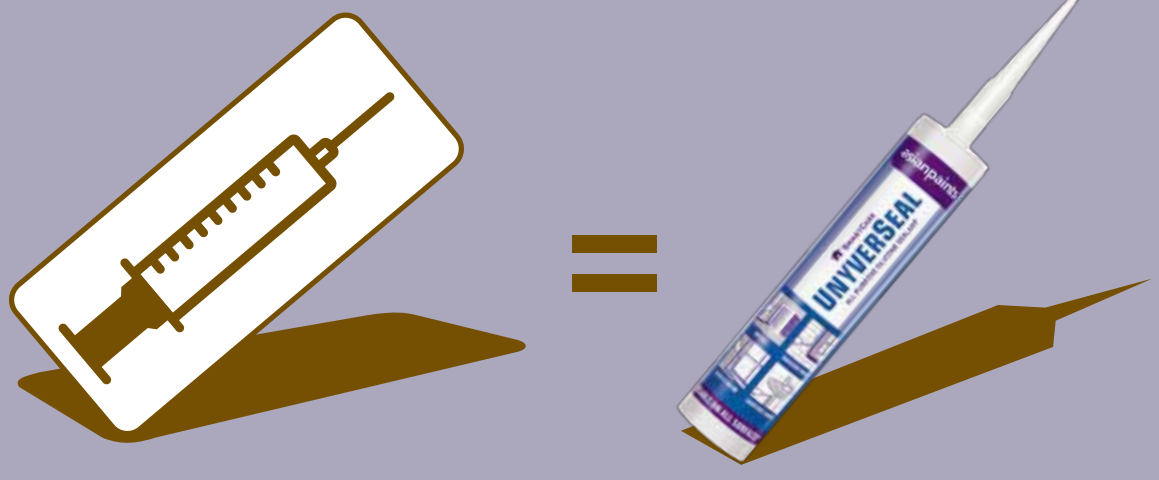
POWDER WATERPROOFING COMPOUND

Easily dispersible & miscible.

Uneven dispersion.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS



UnyverSeal

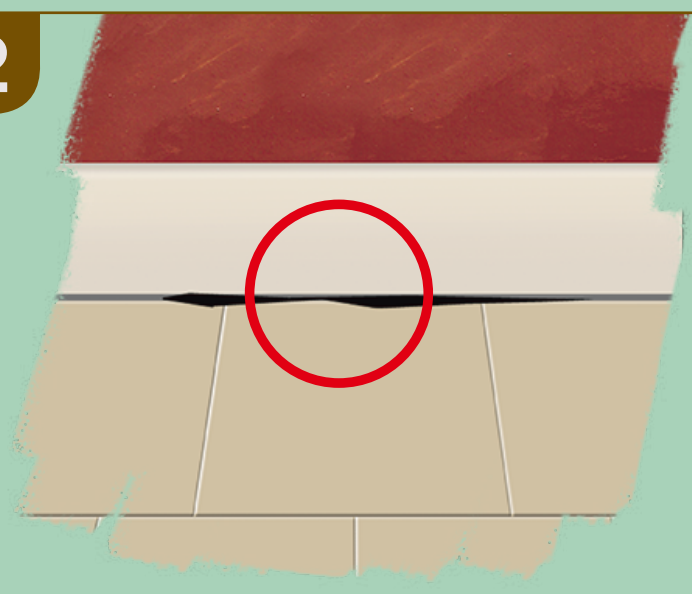
Asian Paints SmartCare UnyverSeal is a durable and odourless neutral silicone sealant for sealing of building, glass and sanitary joints.

Areas of Application

1

Sealing glass, building, sanitary and metallic joints.

2

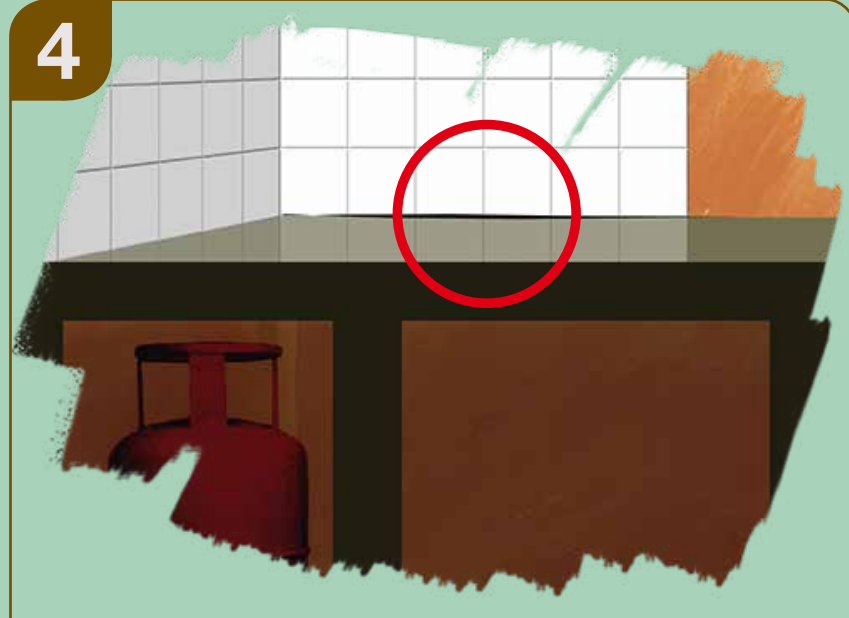


Joints between walls and floors.

3

Joints at the corners of walls.

4



Joints in the kitchen (such as at walls, platforms and floors).

Product Features & Benefits

Neutral Cured: Applicable on all alkaline surfaces and metallic surfaces.

Flexibility: Can withstand joint movement of 25%.

Gap filling: Can be used for joints up to 25 mm.

Waterproofing: Effective waterproofing and protection.

Anti-Fungal: ISO 846 certified fungus protection.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Application Procedure

1

Clean the surface thoroughly
(Remove oil / grease
by degreasing solvent).

2

Cut nozzle and tip
of cartridge according to
joint dimensions.

3

Apply using
a sealant gun.

4

Use a pallet knife for
tooling the surface
and removing the air bubbles.

5

Use masking tape on both the sides of the joint
to get neat and uniform application.

Colours Available	**White, Grey, Black, Clear.**
NOTE	**Silicone Sealants cannot be painted over.**

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

UNYVERSEAL ADVANTAGES

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SMARTCARE UNYVERSEAL

VS

POPULAR COMPETITOR

Neutral Oxim and hence odourless.	Acid cured hence has pungent smell (like vinegar).
Non-Corrosive. Can be used on aluminium, lead, copper, brass, steel.	Acid corrodes metal substrates.
Excellent adhesion on alkaline surfaces like cement & concrete plaster.	Adhesion failure on alkaline surfaces.

SMARTCARE UNYVERSEAL

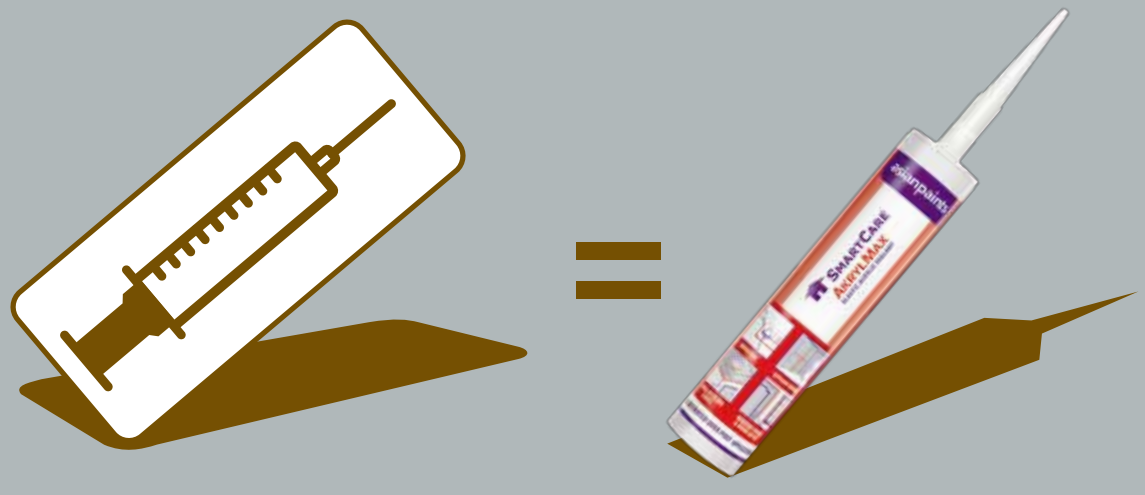
VS

STANDARD PUTTY

Accomodates joint movement up to 25%.	Does not accomodate joint movement.
ISO 846 certified protection from fungi.	No fungi resistance.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS



AkrylMax

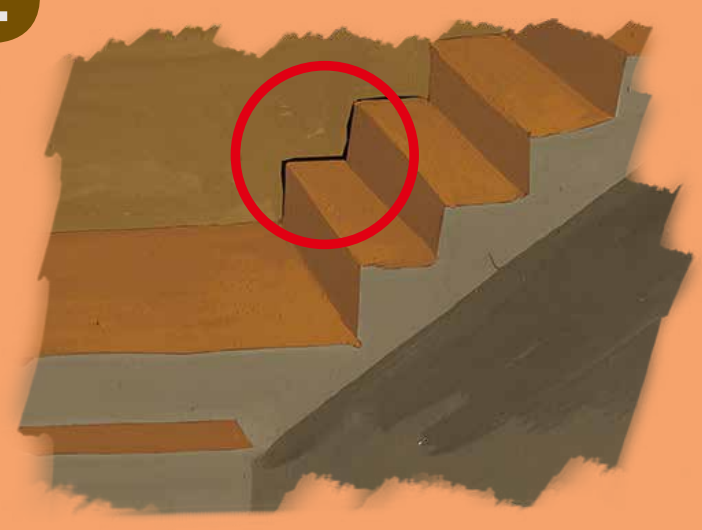
Asian Paints SmartCare AkrylMax is an acrylic emulsion based plastic elastic sealant for sealing building joints that can be topcoated with a water-based paint.

Areas of Application

1

Joints between wooden or metal window frames and concrete or brick work.

2



Joints between stairs and walls.

3

Joints between concrete and sealing elements.

4

Joints between walls and window sills.

Product Features & Benefits

Multi-Surface:
Concrete, brickwork, skirting board, PVC, anodized aluminum, painted wood, etc.

Flexibility:
High elongation film that accommodates minor movements.

Gap filling:
Can be used for joints up to 20 mm.

Waterproofing:
Water-resistant film stops water entry through joints.

Durability:
Forms a highly durable seal that works from temperatures of -20 to +75 °C.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Application Procedure

1

Clean the surface thoroughly
(Remove oil / grease
by degreasing solvent).

2

Cut nozzle and tip
of cartridge according to
joint dimensions.

3

Use primer*
before application.

4

Apply using
a sealant gun.

5

Use a pallet knife for
tooling the surface
and removing the air bubbles.

6

Apply a second coat
after 6 hours of drying.

7

Use primer* before
topcoating with
a water-based paint.

* Primer - Use diluted **AkrylMax** as a primer or for interiors use **Asian Paints Decoprime** water-based primer and for exteriors use **Asian Paints Exterior Primer**

For best results, apply all products after consulting with experts.

SmartCare
EXPERT WATERPROOFING SOLUTIONS

AKRYLMAX ADVANTAGES

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SMARTCARE AKRYLMAX

VS

STANDARD PUTTY

Excellent adhesion on multiple surfaces.	Adhesion on limited surfaces.
Accommodates joint movement up to +/- 7.5 %.	Does not accomodate joint movement.
Water Resistant.	Not Water Resistant.
High Durability.	Low Durability.
Fills gap up to 20 mm.	Material will crack at 20 mm.

Refer to Question number 26 in the FAQ's section for more information

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Post Construction Phase

For those of you who may not have had

the chance of taking the mentioned precautions,

there's no reason to leave your home at the mercy of water.

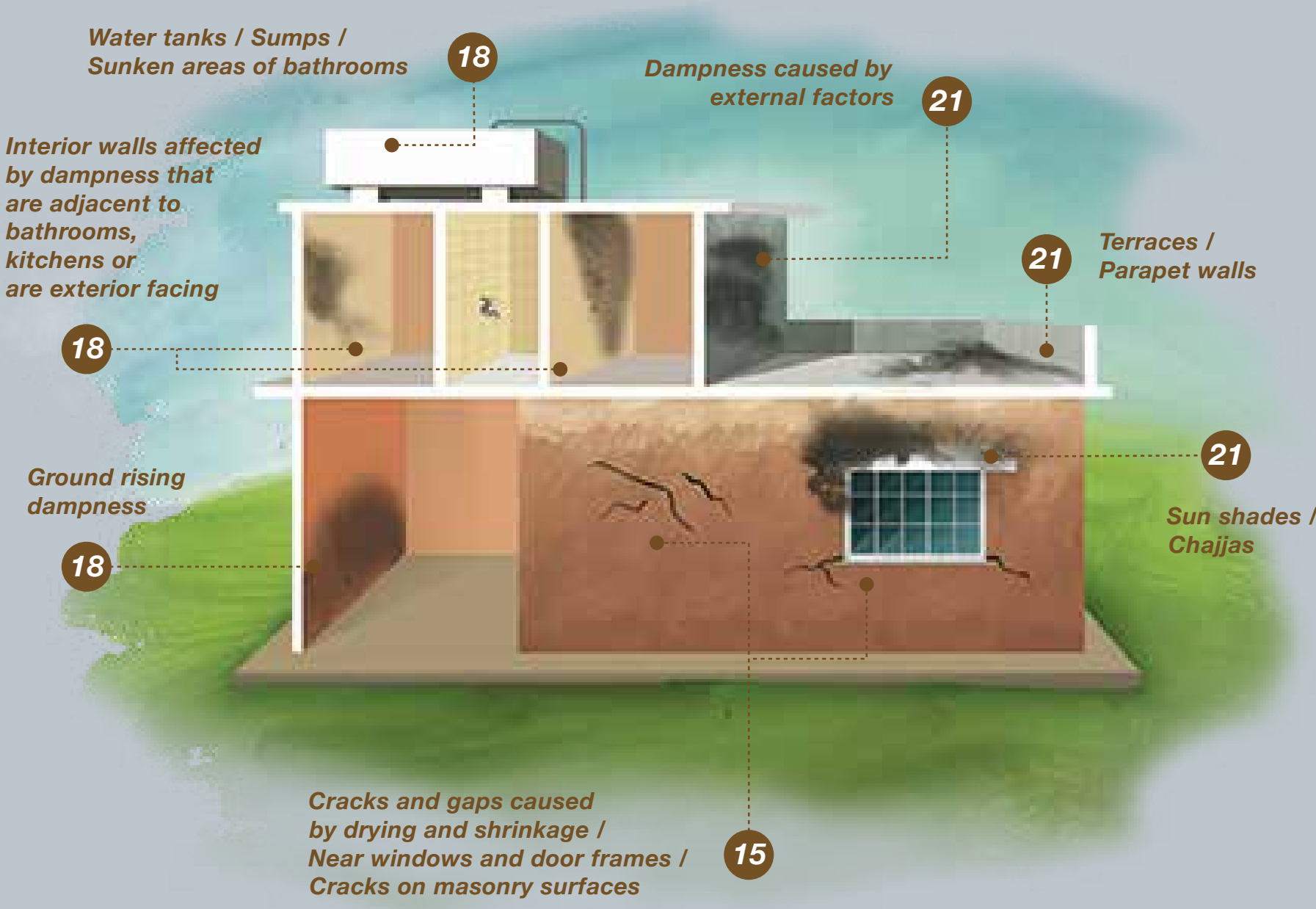
Find all the solutions you need regarding any

waterproofing problems you may be facing.

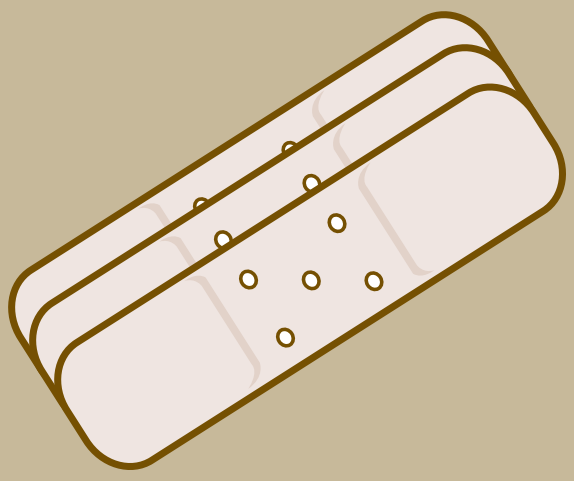
From leaks, seepage and more, read on

to cure your home from all its waterproofing woes.

Index


Water tanks / Sumps /
Sunken areas of bathrooms
18
Dampness caused by
external factors
21
Interior walls affected
by dampness that
are adjacent to
bathrooms,
kitchens or
are exterior facing
18
21
Terraces /
Parapet walls
21
Ground rising
dampness
18
Sun shades /
Chajjas
Cracks and gaps caused
by drying and shrinkage /
Near windows and door frames /
Cracks on masonry surfaces
15


FOR
EXTERNAL
USE ONLY
PAIN
BALM



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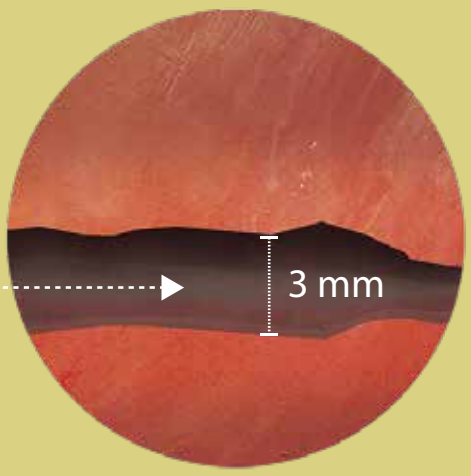
Crack Seal

Asian Paints **SmartCare Crack Seal** is a single pack fibre-glass reinforced crack filling compound for both interior and exterior surfaces. It comes as a ready-to-apply white coloured paste.

Areas of Application

1



Cracks on all interior and exterior masonry surfaces of up to 3 mm width.

2

Cracks and gaps caused by drying and shrinkage.

Product Features & Benefits

Crack Bridging:
Strong filling capacity for plaster cracks of up to 3 mm width.

Flexibility:
High elongation film that accommodates minor movements.

Mechanical Strength:
Strong fibre-glass reinforced film does not let cracks reappear.

Waterproofing:
Water-resistant film stops water entry through cracks.

Low Shrinkage:
Does not leave a mark after painting.

Usage:
Single ready-to-use pack and easy-to-apply product.

For best results, apply all products after consulting with experts.

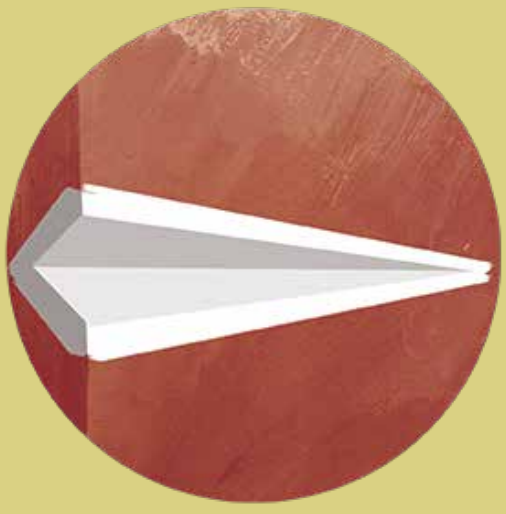
SmartCare
EXPERT WATERPROOFING SOLUTIONS

Application Procedure

1

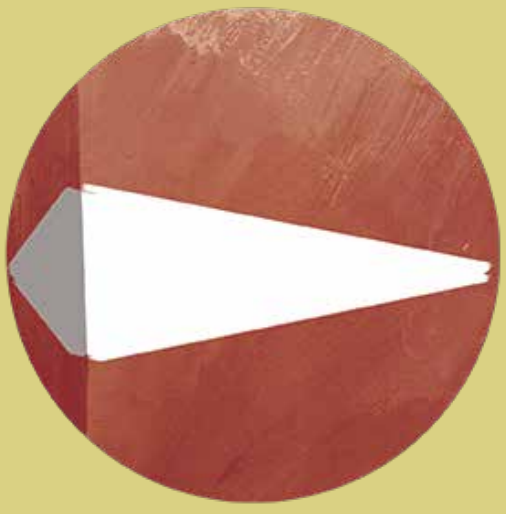
Cleaning
Open the cracks, widen them to form a ‘V’ shaped groove. Clean the area thoroughly so that it is free from loose dust particles.

2



Priming
Post cleaning, treat the opened crack using a primer.

3



Apply the first coat of **SmartCare Crack Seal** on the crack using a spatula or putty knife. Press the paste firmly into the crack and level with the surface.

4

Allow it to set for 6 - 8 hours before applying the 2nd coat of **SmartCare Crack Seal.**

5

Further finishing like POP or putty can be taken up once the coat is fully dry.

CRACK SEAL ADVANTAGES

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SMARTCARE CRACK SEAL

VS

POPULAR COMPETITOR

&

STANDARD PUTTY

SMARTCARE CRACK SEAL	POPULAR COMPETITOR	STANDARD PUTTY
Reinforced with glass fibre. Strong mechanical and waterproofing properties.	No fibre. Does not have similar mechanical properties.	No fibre. Just a temporary solution.
Polymer modified. Can accommodate minor movements and temperature variations and hence flexible.	Similar properties, however less than Crack Seal.	No flexibility. Very rigid and will crack in a few months.
Can bridge up to 3 mm cracks.	Similar properties, however less than Crack Seal.	Not a crack filling product.
High solid content. Low shrinkage.	More shrinkage in comparison to competition.	Putty does not possess this feature.
Less drying time of 6 - 8 hrs.	Takes longer to dry - 24 hrs.	Putty does not possess this feature.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

=

Damp Block

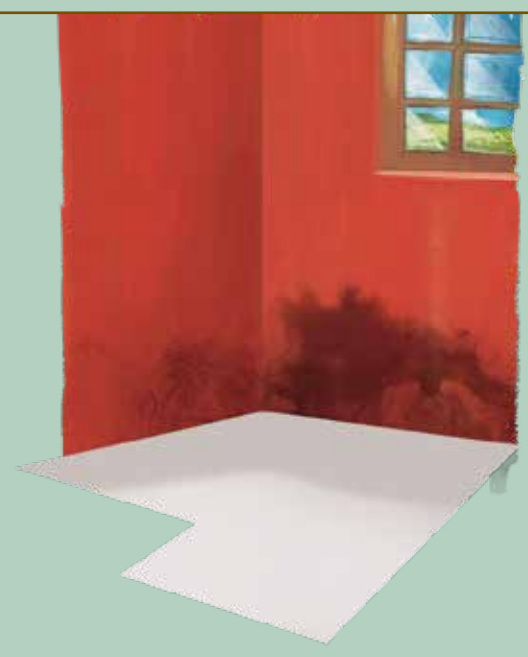
Asian Paints **SmartCare Damp Block** is a flexible polymer modified cement based anti-dampness coating for interiors. It is a single pack white coloured powder that is easy-to-apply and offers lasting protection from dampness.

Areas of Application

1

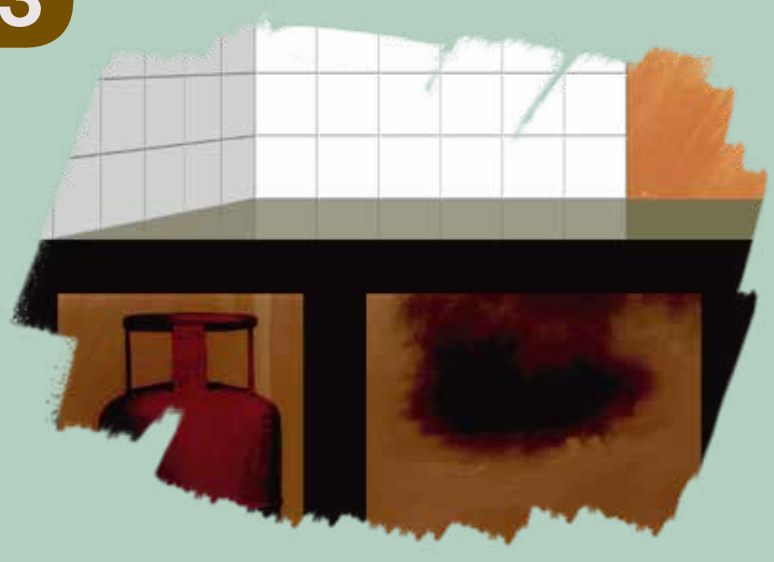
Interior walls affected by dampness that are adjacent to bathrooms, kitchens or are exterior facing.

2



Interior walls affected by ground rising dampness.

3



Damp areas near kitchen sink.

4

Dampness on walls adjacent to bathrooms.

Product Features & Benefits

Waterproofing:
Resists 4 bars of hydrostatic pressure from the negative side.

Nanotechnology:
Nano sized particles enter smallest of pores and crevices to block water from coming out.

Breathability:
Breathable nature allows water vapour to pass while completely blocking water, thus preventing blistering.

Crystalline Technology:
Reacts with water and forms crystals to effectively block water.

Adhesion:
High tensile and excellent bond strength with cementatious substrates.

Ease of Use:
Single pack and easy-to-apply.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Application Procedure

1

Cleaning
Remove old paint, putty or existing POP using a chisel and wire-brush. Ensure you reach the cement plaster for the product application.

2

Priming
Apply a self-priming coat of **SmartCare Damp Block** (diluted with water in 1:1 ratio).

3

Apply 2 coats of **SmartCare Damp Block** (diluted with water in 3:1 ratio) using a putty knife or a trowel. Achieve a forced coverage of 7.5 sq.ft./kg for the system*).

4

The system should cover an area well over and wide, of the affected area. This will prevent water from affecting the adjacent areas.

5

A gap of 4 hours should be given between coats.

6

Apply putty-primer and suitable topcoat.
For severely affected areas, apply an additional coat as mentioned above.

Material Calculator

***Affected Area:** ..... sq.ft. (Calculate by adding 2 feet beyond the affected area on all sides)

Coverage: ..... 7.5 sq.ft./ltr.

Material required: ..... (Affected Area ÷7.5) ltrs.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

DAMP BLOCK ADVANTAGE

asianpaints

SMARTCARE DAMP BLOCK

VS

POPULAR COMPETITOR

&

STANDARD PUTTY + CHEMICAL

SMARTCARE DAMP BLOCK	POPULAR COMPETITOR	STANDARD PUTTY + CHEMICAL
Highly breathable product. Allows water vapour to pass while blocking water.	Completely non-breathable. Hence pressure builds up over time.	Moderately breathable.
Resists negative hydrostatic pressure of up to 4 bars.	Resists negative hydrostatic pressure less than 4 bars.	Cannot withstand negative hydrostatic pressure. Dampness starts reappearing within a few weeks.
Highly flexible. Hence can accommodate minor movements and cracks that develop later.	Hard & Brittle.	Very rigid. Hence will crack easily.
Easy-to-apply, single pack product.	2 pack product. Not painter friendly.	Products to be sourced independently.
Formulated using nanotechnology and crystalline technology.	No such technology.	Cheap. Not a waterproofing solution.
1 mm thickness.	60 microns.	Putty product does not possess this feature.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Damp Proof

Asian Paints **SmartCare Damp Proof** is a fibre-reinforced elastomeric liquid applied waterproof coating. Upon curing, it forms a seamless, durable membrane to offer excellent waterproofing.

Areas of Application

1

Terraces + Parapet

2

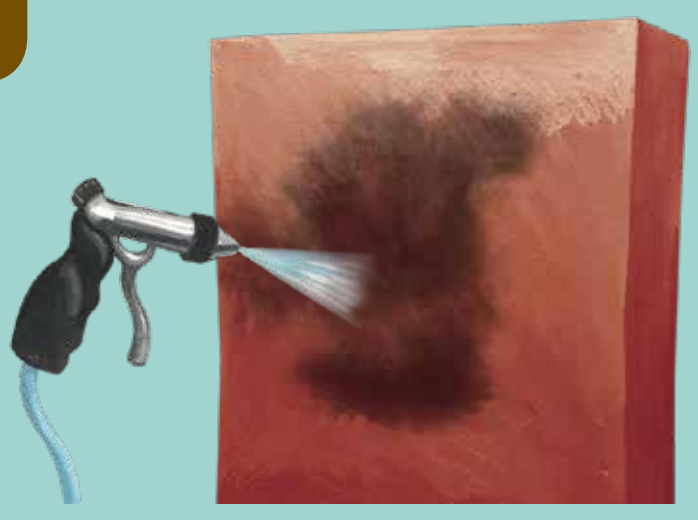
Sun shades / Chajjas

3

Exterior walls affected by dampness

Surface Preparation

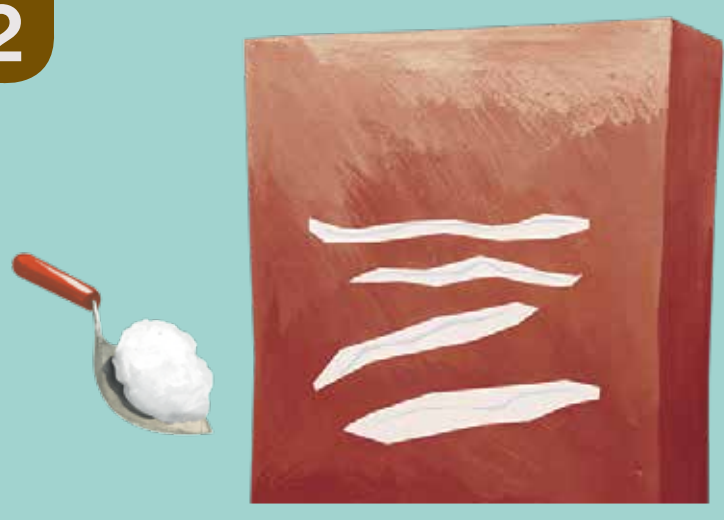
1



Cleaning

Clean the surface and ensure that it is free of oil, grease and loose dust particles. It is recommended to use intense wire-brushing or high-speed water jet.

2



Repairing

The substrate must be checked for soundness using a small hammer. All cracks of up to 3 mm should be treated with **SmartCare Crack Seal**. All damaged portions need to be repaired.

Product Features & Benefits

Waterproofing: Waterproofing protection of up to 7 bars hydrostatic pressure from the positive side.

Crack Bridging: High film elongation allows excellent crack bridging ability for cracks up to 0.8 mm on terraces and 2 mm on vertical walls.

Anti-Carbonation: Protection against carbon dioxide and chloride ion diffusion to maintain the strength of the structure.

Heat Proof: Brilliant white coat and high Dry Film Thickness (DFT) of 650 microns results in high heat reflection that results in cool interiors.

Mechanical Strength: Fibres in the coating offer very strong mechanical properties and abrasion resistance to the film.

Ease of Use: Single pack, easy-to-apply and simple recoating for maintenance.

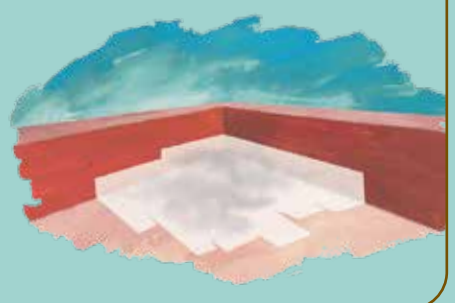
For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Application Procedure for Horizontal Areas

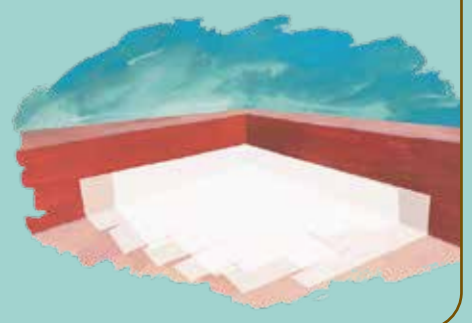
1

Apply a self priming coat of **SmartCare Damp Proof** (diluted with water in 3:1 ratio).



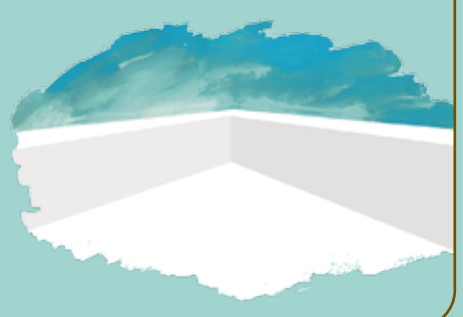
2

Apply two perpendicular coats of **SmartCare Damp Proof** without dilution. Also cover the parapet walls to give an envelop coating.



3

Achieve a forced coverage of 10 sq.ft./ltr. for the system*.



4

Allow to dry for 4-6 hours between two coats.

Application Procedure for Vertical Areas

1

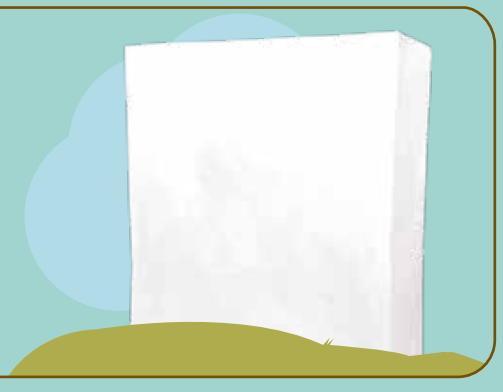
Apply a self priming coat of **SmartCare Damp Proof** (diluted with water in 3:1 ratio).

2

Apply one coat of **SmartCare Damp Proof** without dilution.

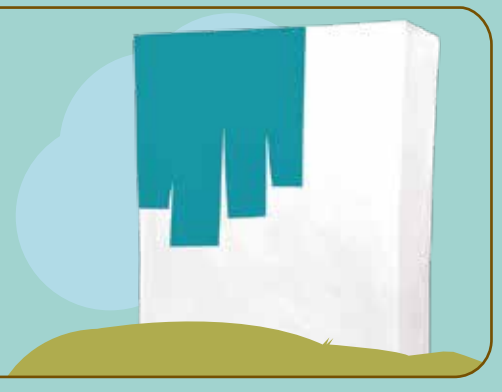
3

Ensure a forced coverage of 25 sq.ft./ltr. for the system#.



4

Apply two coats of any high quality exterior emulsion of the desired shade.



5

Allow to dry for 4-6 hours between coats.

Material Calculator

***Terrace Area:** ..... sq.ft.	**#Wall Area:** ..... sq.ft.
Coverage: ..... 10 sq.ft./ltr.	Coverage: ..... 25 sq.ft./ltr.
Material required: ..... (Affected Area ÷ 10) ltrs.	Material required: ..... (Affected Area ÷ 25) ltrs.

For best results, apply all products after consulting with experts.

SmartCare
EXPERT WATERPROOFING SOLUTIONS

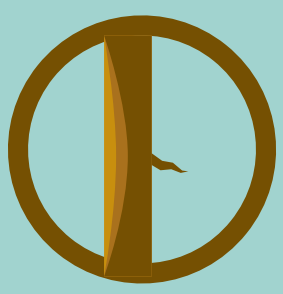
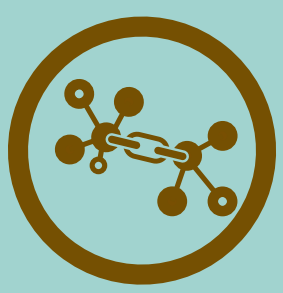
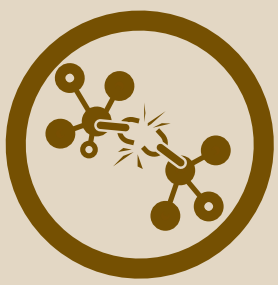
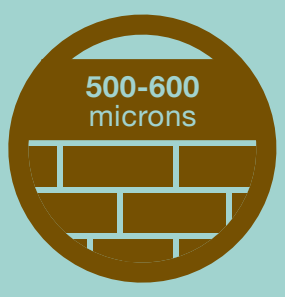
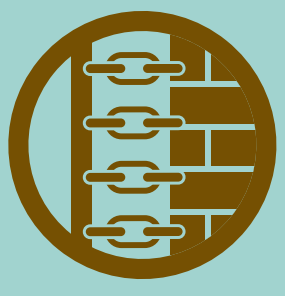
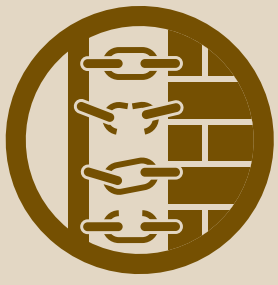
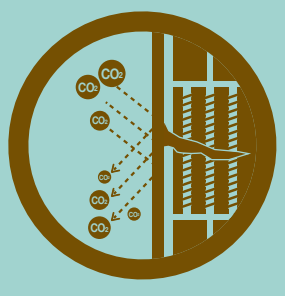
DAMP PROOF ADVANTAGES

asianpaints

SMARTCARE DAMP PROOF

VS

POPULAR COMPETITOR

 Highly flexible up to 220%. Crack bridging ability of up to 2mm.	 Low elongation of only 93%.
 Reinforced with recron fibre for abrasion resistance.	 Poor abrasion resistance.
 Dry Film Thickness up to 500-600 microns on horizontal application.	 Dry Film Thickness up to 300-400 microns.
 Strong adhesion to concrete.	 Medium adhesion to concrete.
 Advanced anti-carbonation property.	This property is not found in most competitor products.
 For terraces and side walls.	 Separate products for separate areas.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

TOPCOATS

After you’re done resolving all the dampness-related problems, give your home the beauty and style that come with the Asian Paints premium range of topcoats. Designed to make your homes the topic of conversations, these topcoats offer additional protection to your home.

Royale Shyne

High-End Interior Emulsion

Experiment with beauty as you colour your walls with unlimited possibilities. With features like Enhanced Anti-Fungal and Anti-Bacterial Capabilities, Superior Stain Resistance, Better Opacity and Increased Smoothness of Finish, make your walls your canvas.

Product Features & Benefits

Superior Stain Resistance:
Prevents stains from penetrating the film to make it easy to clean and maintain.

Enhanced Anti-Fungal and Anti-Bacterial Shield:
Conforms to the Japanese industrial standard, killing 99.8% of micro-organisms that come in contact with walls and resists fungal growth to maintain the beauty of interior walls.

Unmatched Film Durability:
Protects wall surfaces against regular pressures. For instance, furniture brushing against walls.

Apex Ultima

High-End Exterior Emulsion

Give your home the touch of advanced painting technology with the Colour Stay™ Technology, Dust Pick-Up Resistance and Increased Anti-Algal Formula in the new Apex Ultima.

Product Features & Benefits

Colour Stay™
Ensures brighter, cleaner shades that stay longer without fading.

Anti-Algal Formula:
Fights formation of algae and keeps walls free from ugly black spots.

Dust Pick-Up Resistance:
Prevents dust from settling on walls, keeping walls clean.

For best results, apply all products after consulting with experts.

SMARTCARE
EXPERT WATERPROOFING SOLUTIONS

Tips to Protect Your Walls

Simple Solutions To Prevent Problems.

Pipes:	Replace every ten years.
Air Conditioner Ducts:	Solve leaks immediately. Usage of longer pipes is recommended.
Internal Dampness:	Look out for internal dampness. Repair cracks and replace leaking pipes immediately.
Weeds:	Ensure that drainage channels and wall surfaces are always kept clean of plant growth.
Sloped Terraces:	Ensure sufficient slope to your terraces.
Clogged Drains:	Ensure that drain pipes are not clogged.
Quality Of Material:	During construction or renovation, ensure that good quality sand and cement are used.
Gardening:	Channel the flow of water away from balconies and use tiles near the ground surface to prohibit permeation while watering plants.

Easy Checks To Keep Your Home Beautiful Forever

Pre monsoon Check

Keep your eye out for any leakages in the plumbing. Refer to the ideas provided in the book and make your homes rain-ready.

Monsoon Check

This is the time when you need to take curative steps. Trim trees that have overhanging branches. Keep the areas where water pooling may happen, clean and obstacle-free.

Post monsoon Check

As the monsoon draws to an end, your home can breathe a sigh of relief. Check for any spotting on exterior walls which indicate algal growth. A good wash is recommended for your walls, post monsoon.

Wash & Scrub

It is advisable to wash and scrub your walls at least once or twice a year to ensure the lasting beauty of your home. This makes sure that any settled dust or fumes are washed away and your home stays clean and beautiful.

Waterproofing Simplified

General FAQs:

1) What is the difference between sealants and adhesives?

An adhesive is a material in liquid or paste form that bonds two substrates together. The primary property desired from an adhesive is superior bonding strength.

A sealant is a material in paste form that is flexible or elastic in nature and the primary property desired from a sealant is to seal the joints between two dissimilar substrates “hermetically”. Hermetic means water and air is not allowed to pass through the joint. Sealants have a high MAF (movement accommodation factor).

2) What is Movement Accommodation Factor (MAF)?

Movement accommodation factor is the capability of the sealant to accommodate expansion and contraction movements in the joint. E.g. MAF - +/- 25 % means that when a joint of 1 inch width expands +25 %, its width becomes 1.25 inches & when it contracts -25 %, its width becomes 0.75 inches.

3) What are the different grades of cement?

Types:

OPC - Ordinary Portland Cement-Grey & White

PPC - Portland Pozzolona Cement-Grey (cement with fly ash)

HAC - High Alumina Cement (rapid setting cement)

SRC - Sulphate Resistant Cement (construction in marine or coastal areas that have contact with salt water.)

Grades: 33-Compressive strength of 33 N/Sq.mm or 330 Kg/Sq.cm after curing for 28 days in water. Similarly for 43 & 53 grades.

4) Can any water be used in concreting?

No, water must be fit for drinking. Water must be free of salts, suspended solids, oils and fats. IS 456-1978 provides the requirement of the water to be used.

5) What is water permeability?

Water permeability is the rate of flow of fluid through a given substrate per unit area per unit time.

6) What is the difference between a Neutral and Acetoxy cured Silicone Sealant?

Acetoxy silicone sealant reacts with moisture in the air releasing acetic acid, which has pungent odour and may corrode metal. It also affects the adhesion to highly alkaline surfaces. Neutral silicone sealant releases alcohol which reacts with moisture in the air and does not have bad odour and gives excellent adhesion with alkaline and metallic surfaces.

7) Can Silicone Sealants be painted over?

Silicone sealants cannot be painted over. Acrylic sealants can be used for joints that need to be painted.

8) Can AkrylMax be used for applications permanently under water?

No. While AkrylMax has waterproofing capability it is not suitable for permanent underwater exposure.

9) When should I use AkrylMax and when should I use UnyverSeal?

Whenever there is a need to paint over the joints, AkrylMax should be used.

Whenever there is a requirement for high MAF between any dissimilar joints, UnyverSeal should be used.

10) Can UnyverSeal be used in Aquariums / Fish Tanks?

No. UnyverSeal is Anti-Fungal and is ISO 846 certified for the same and hence should not be used in aquariums and tanks.

11) What happens if the recommended dosage of Vitalia is exceeded?

All the properties of Vitalia remain the same even at double the dosage. In fact the workability increases.

12) What are the typical causes of movement?

Typical causes of movement are linear expansion, properties of construction materials, wind pressures, settlement in foundation, weathering, vibrations, loads, faulty construction practices, etc.

13) What is hydrostatic pressure (HPR)?

Hydrostatic pressure is the pressure applied by a column of water on the building structure. In waterproofing language, this pressure is classified as positive side and negative side hydrostatic pressure. Pressure applied by water on the structure while trying to penetrate it, is positive side hydrostatic pressure. Pressure applied by water on the structure while trying to come out of the structure is negative side hydrostatic pressure.

14) What is the difference between positive side waterproofing and negative side waterproofing?

Positive side waterproofing: Applying waterproofing material to the side of a structural element subjected to positive side hydrostatic pressure. More often than not, it entails stopping the source of water and not allowing water to enter the structure.
Negative side waterproofing: Applying waterproofing to the side of a structural element opposite the one subjected to negative side hydrostatic pressure. Mostly, this is done on interior walls and is meant to block the water from coming out and causing dampness-related problems on the walls.

15) What is carbonation and anti-carbonation coating?

Carbonation is the formation of calcium carbonate ($CaCO_3$) by a chemical reaction in the concrete. When these reactions take place the pH-value will start falling. The normal pH-value of concrete is above 13 and the pH-value of fully carbonated concrete is below 9. Once the carbonation process reaches the reinforcement rods, and the pH-value drops beneath 13, corrosion will initiate. The formation of lime in the substrate also causes the structure to weaken over a period of time. Anti-carbonation paint forms an impermeable coating and does not allow the ingress of carbon dioxide and chloride ions into the substrate. Thus, they protect the structure from the effects of carbonation and ensure its longer life.

16) What is forced coverage?

Forced coverage is enforcing the usage of exact quantity of material for a specifically designated area. Normally forced coverage is achieved by marking the area to be painted, calculating the area, ascertaining the material that'll be needed and finally ensuring that the entire quantity is used up only for that area. In the area of waterproofing, the application procedure is as important as the product itself for optimum performance. Achieving the recommended forced coverage is therefore, imperative.

17) What is shrinkage in cracks?

When a crack is treated using a crack filling compound, normally an indentation is observed in the treated area due to evaporation of water. Hence, cracks normally require multiple coats for bringing them level with the surface. Lesser the solid content in the crack-filler, greater will be the shrinkage.

18) What is breathability?

Breathability is the ability of the coating to allow the passage of water vapour.
A breathable coating resists liquid water from passing through but allows water vapour to pass. A non-breathable film results in pressure getting accumulated on the surface due to water vapour and may eventually lead to the paint giving way and leading to blistering or bubbling.

19) What is the meaning of the unit 'bar'?

Bar is the unit of pressure. One bar implies the pressure that will be applied on a 1 sq.cm area by a water column of 10 meter height.

20) What is the difference between damp proofing and waterproofing?

Waterproofing is defined as the treatment of a structure or surface to prevent the passage of water under hydrostatic pressure. Damp proofing is defined as the treatment of a structure or surface to resist the passage of water in absence of hydrostatic pressure. Damp proofing is a temporary solution whereas waterproofing is a long term solution.

21) What is efflorescence?

Efflorescence occurs on masonry construction when water moving through a wall or other structure, due to vapour transmission or hydraulic pressure brings salts to the surface. As the water evaporates, it leaves the salt behind, which forms a white, fluffy deposit, that can normally be brushed off. The resulting white deposits are referred to as 'efflorescence'. Efflorescence is also referred to as 'salt petering' or 'lime blooming'. It is not a structural, but rather, an aesthetic concern and is normally harmless.

22) How can Efflorescence be treated?

Wash the affected surface with 10% diluted hydrochloric acid (HCl) up to a radius of 1.5 - 2 sq.ft. around the affected area. Leave the diluted acid onto the surface for 15 - 20 minutes and thereafter, wash the surface with water. Once the surface has fully dried, apply SmartCare Damp Block as per the recommended application procedure. SmartCare Damp Block can only be used for walls affected with moderate efflorescence after treating the affected area with acid as explained above. Direct application of SmartCare Damp Block on efflorescence is not advised.

23) While waterproofing, why is it recommended to cover an area beyond the affected portion?

Water generally finds the path of least resistance through the substrate and affects the topcoat of paint in the form of paint peeling or damp patches. So, when only the affected area is blocked with an anti-damp coat, the water will try and find the next available path to reach the surface and start affecting the portion of the wall immediately next to the treated area. Hence, it is recommended that when treating an affected area with Damp Block, one should mark an area of 2 ft. beyond, on all sides for Damp Block application.

24) Why is it recommended to envelop the entire terrace with Damp Proof instead of just treating the affected portion?

Since more often than not, it is difficult to identify the entry point or source of water due to which the walls on the interiors get affected, by enveloping the entire terrace with Damp Proof, we ensure that all the entry points are blocked and water cannot penetrate into the substrate.

25) What is the crystalline technology in the new and improved Damp Block?

The conventional concrete matrix has a number of micro cracks, pores and capillary tracts through which water enters the concrete. The special ingredients in Damp Block react with water and elements like calcium hydroxide and aluminium to form insoluble crystals. These crystals fill the voids and cracks and block the passage of water thus making the concrete waterproof. Normally, these crystals lie dormant but when water reappears, the crystalline growth is resumed, thus filling up newly formed pores. Though these crystals block water, they are breathable enough to allow water vapour to pass through, thus preventing vapour pressure buildup. With this advanced crystalline technology, Damp Block offers the best-in-class negative side waterproofing for interior dampness problems.

26) How is SmartCare Damp Proof better than conventional waterproofing methods like Brick Bat Coba and Bituminous Coatings?

Traditional terrace waterproofing methods like Brick Bat Coba add unnecessary load, damage the structure and are expensive. Bituminous coatings on the other hand are tedious to apply and not the most durable. Both Brick Bat and Bituminous restrict the use of terrace due to excessive heat and give poor insulation properties. Damp Proof is based on the latest liquid applied elastomeric membrane technology which is most advanced for terrace waterproofing. It is easy to apply, durable and has recron fibre which allows the accessibility to terrace even with moderate foot traffic. It is also the most cost effective in comparison to traditional methods.

NOTES