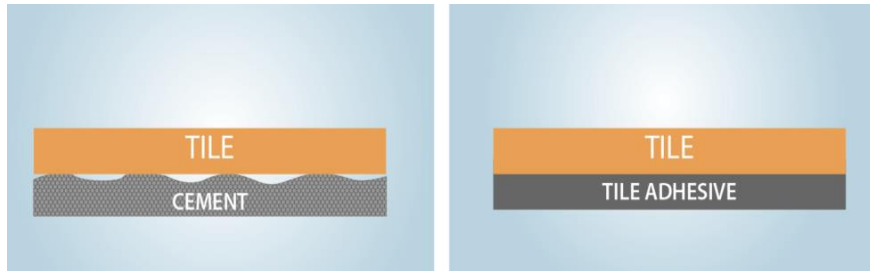# Asian Paints Smart Care Products for CH 11
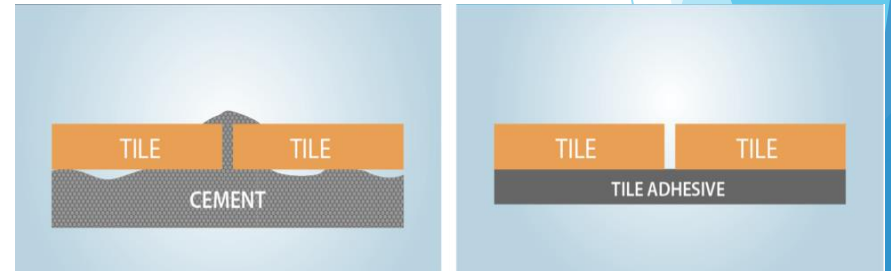
Tile Adhesive vs Cement Mortar

Performance Parameters

+ Cement shrinks after drying, this create pores after drying which results in poor bonding between tiles and cement

+ Tile Adhesive is a fine paste that uniformly spreads across the tile to form a consistent bed bond and a firm base across the entire surface

Adhesion Parameters

+ Cement expands and contracts and this weakens the bond between tile and cement

+ Tile adhesive gives the excellent flexibility which reduces the chances of de bonding due to expansion and contraction

+ Tile Adhesive require only 3-6mm thickness vs cement mix requiring 9-12mm thickness | Adds weight to the structure
+ More than 3x the open time compared to cement mixture (20-30mins vs 5-7mins) | More time for application
+ Around 7.5x flow rate ensuring no voids between tile and adhesive | Consistent Bed
+ The process is 2x faster with Tile Adhesive | Faster Job Completion

*These are general factors and may vary from region to region

Normal Tile Adhesive

- **No pre-soaking** of tiles & no water curing required post application

- Single component, **ready-to-use mixture** consisting of cement, sand and special additives. Meets the requirements of **IS 15477 Type -1 T** for tile adhesives

- **Long pot life** ensures larger quantities of material being mixed

- **Excellent adhesion & slip resistance**

- **Water resistant** due to low water absorption

- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

Pack: 20 & 30 Kgs
Color: Grey
Shelf Life: 1 Year
Pot Life: 3 hrs

Recommended Usage: For fixing ceramic & vitrified tiles up to **2X2 ft size** on interior & exterior floor areas & fixing **ceramic tiles of up to 1X2 ft size** on walls up to **10 feet height**.

Application Process:

✓ Mix the adhesive in **approx. 25% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

✓ Apply adhesive on floor/wall with the **thickness of 3-6 mm** using notch trowel within 8-10 Sq.Ft. area at a time.

✓ Fix tiles firmly into position with a sliding motion and hammer gently with soft mallet to assume a better bond. Leave adequate & desirable joints between the tiles by using spacers.

✓ Clean off excessive adhesive between the joints & on tiles with a damp cloth. **Leave it to dry for 24 hrs**. Fill the joints using Smart Care Epoxy Tile Grout/Cement based Tile Grout of desired shade.

Coverage: 2 - 2.5 Sq.Ft./Kg for a bed of 3 mm thickness

Ezy White Tile Adhesive

- Single component, **ready-to-use, white cement-based** polymer modified adhesive

- **Excellent adhesion and slip resistance,** Meets **IS 15477 Type -1 T** compliances

- **Long pot life** ensuring larger quantities of material being mixed

- Low water absorption makes it **water resistant**

- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

- Excellent product offering at a **very economical price**

Pack: 20 Kgs
Color: White
Shelf Life: 1 Year
Pot Life: 3 hrs

Recommended Usage: For fixing ceramic, porcelain & vitrified tiles of up to **2X2 ft. size** on interior & exterior floor & interior walls up to **10 feet** height.

Application Process:

✓ Mix the adhesive in **approx. 35% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

✓ Apply adhesive on floor with the **thickness of 3-6 mm** using notch trowel within 8-10 Sq.Ft. area at a time.

✓ Fix tiles/stones firmly into position with a sliding motion and hammer gently with soft mallet to assume a better bond. Leave adequate & desirable joints between the tiles by using spacers.

✓ Clean off excessive adhesive between the joints & on tiles with a damp cloth. **Leave it to dry for 24 hrs.** Fill the joints using Smart Care Epoxy Tile Grout/Cement based Tile Grout of desired shade.

Coverage: 2 - 2.5 Sq.Ft./Kg for a bed of 3 mm thickness

Tile On Tile Adhesive

- **No water curing & pre-soaking** of tiles required before application
- Single component, **ready-to-use mixture** consisting of cement, sand and special additives. Meets the requirements of **IS 15477 Type-2 'T'S1** for tile adhesives
- **Long pot life** ensures larger quantities of material being mixed
- **Excellent adhesion** & **slip resistance** on existing tiles & superior water resistance
- **Low shrinkage & greater flexibility** helps to accommodate thermal & physical moments
- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

Pack: 20 & 30 Kgs
Color: Grey & White
Shelf Life: 1 Year
Pot Life: 3 hrs

Recommended Usage: For fixing medium format vitrified tiles over existing tiles on floor as well as vitrified tiles of up to **2X4 ft size on walls up to 10 feet height** in interior & exterior areas.

Application Process:

✓ Mix the adhesive in **approx. 25% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

✓ Apply adhesive on floor/wall with the **thickness of 3-6 mm** using notch trowel within 8-10 Sq.Ft. area at a time.

✓ Fix tiles firmly into position with a sliding motion and hammer gently with soft mallet to assume a better bond. Leave adequate & desirable joints between the tiles by using spacers.

✓ Clean off excessive adhesive between the joints & on tiles with a damp cloth. **Leave it to dry for 24 hrs**. Fill the joints using Smart Care Epoxy Tile Grout/Cement based Tile Grout of desired shade.

Coverage: 2 - 2.5 Sq.Ft./Kg for a bed of 3 mm thickness

Stone & Heavy Tile Adhesive

- **No water curing & pre-soaking** of tiles required before application

- Single component, **ready-to-use mixture** consisting of cement, sand and special additives, Meets **IS 15477 Type -2 'T' S1** requirements.

- **Long pot life** and open time for smooth application

- Provides **excellent adhesion & slip resistance** for heavy tiles/stones

- Low water absorption makes it **water resistant & minimizes shrinkage cracks**

- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

Pack: 20 & 30 Kgs
Color: Grey
Shelf Life: 1 Year
Pot Life: 2 hrs

Recommended Usage: For fixing heavy natural stones, granites, marbles & large vitrified tiles on floor & natural stones of up to **2X4 ft size on walls up to 10 ft. height** in interior & exterior areas.

Application Process:

✓ Mix the adhesive in **approx. 25% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

✓ Apply adhesive on floor/wall with the **thickness of 6 mm** using 12 mm notch trowel.

✓ Fix the heavy stones with proper precautions to ensure 100% area contact with adhesive & use mechanical support wherever necessary.

✓ Clean off excessive adhesive between the joints & on tiles with a damp cloth. **Leave it to dry for 24-48 hrs**. Fill the joints using Smart Care Epoxy Tile Grout/Cement Tile Grout of desired shade.

Coverage: 1 - 1.25 Sq.Ft./Kg for a bed of 6 mm thickness

White Multipurpose Tile Adhesive

- **Superior waterproofing,** Meets **IS 15477 Type-2 'T'S1** compliances
- Single component, **ready-to-use white cement based,** polymer modified, fiber reinforced adhesive
- **Long pot life** and open time for smooth application
- **Long lasting adhesion** with superior bond strength
- **Low shrinkage & greater flexibility** helps to accommodate thermal & physical moments
- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

Pack: 30 Kgs
Color: White
Shelf Life: 1 Year
Pot Life: 3 hrs

<u>**Recommended Usage:**</u> For fixing glass mosaic tiles & medium format natural stones of up to **2X4 ft size** on interior & exterior floor & on walls up to **10 feet height**.

<u>**Application Process:**</u>

- ✓ Mix the adhesive in **approx. 35% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

- ✓ Apply adhesive on floor/wall with the **thickness of 3-6 mm** using notch trowel within 8-10 Sq.Ft. area at a time.

- ✓ Press the glass mosaic tile firmly, hammer gently with soft mallet to assume a better bond. Ensure that tile adhesive seeps out from the joints of tiles.

- ✓ Remove the face sheet bonded to the glass mosaic by wetting with water. Clean off excessive adhesive b/w the joints & on tiles with damp cloth. **Leave it to dry for 24 hrs**. Use Asian Paints Epoxy Tile Grout for filling the joints.

<u>**Coverage:**</u> **2 - 2.5 Sq.Ft./Kg for a bed of 3 mm thickness**

Stone & Heavy Tile Adhesive Advanced

- **No water curing & pre-soaking** of tiles required before application

- Single component, **ready-to-use mixture** consisting of cement, sand and special additives, Meets **IS 15477 Type-3 'T'S1** requirements
  Long pot life and open time for smooth application

- Provides **excellent adhesion & slip resistance** for heavy tiles/stones

- Low water absorption makes it **water resistant & minimizes shrinkage cracks**

- **Less time and labour intensive**, Trafficable (ready to use) after 24 hrs

Pack: 20 Kgs
Color: Grey & White
Shelf Life: 1 Year
Pot Life: 2 hrs

Recommended Usage: For fixing large format tiles, natural stones, granites & marbles of on interior & exterior walls at higher heights.

Application Process:

✓ Mix the adhesive in **approx. 25% water** by continuous stirring to get lump free consistency. Leave it for 5 minutes.

✓ Apply adhesive on floor/wall with the **thickness of 6 mm** using 12 mm notch trowel.

✓ Fix the heavy stones with proper precautions to ensure 100% area contact with adhesive & use mechanical support wherever necessary.

✓ Clean off excessive adhesive between the joints & on tiles with a damp cloth. **Leave it to dry for 24-48 hrs**. Fill the joints using Smart Care Epoxy Tile Grout/Cement Tile Grout of desired shade.
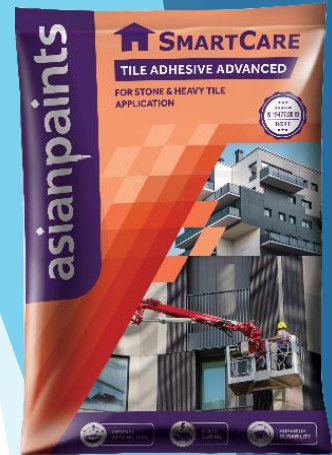
Coverage: 1 - 1.25 Sq.Ft./Kg for a bed of 6 mm thickness

Tile Adhesives: Use Case Laddering

Product Code	Product Name	Color	Type of Tiles	Horizontal Application		Vertical Application		
				Floor	Tile Sizes	Walls	Tile Sizes	Height
5425	Normal Tile Adhesive	Grey	Ceramic, Porcelain & Vitrified Tiles	Y	Up to 2X2 ft.	Y	Up to 1X2 ft. (Ceramic Tiles Only)	10 Feet
6875	Ezy White Tile Adhesive	White	Ceramic, Porcelain & Vitrified Tiles	Y	Up to 2X2 ft	Y	Up to 2X2 ft.	10 Feet
5426	Tile on Tile Adhesive	Grey & White	Ceramic, Porcelain & Vitrified Tiles	Y	All Sizes	Y	Up to 2X4 ft.	10 Feet
5639	Stone & Heavy Tile Adhesive	Grey	Large Tiles, Natural Stones, Granites & Marbles	Y	All Sizes	Y	Up to 2X4 ft.	10 Feet
5427	White Multipurpose Tile Adhesive	White	Glass Mosaic Tiles, Natural Stones, Granites & Marbles	Y	All Sizes	Y	Up to 2X4 ft.	10 Feet
1A94	Stone & Heavy Tile Adhesive Advanced	Grey & White	Marbles, Granites & other Heavy Natural Stones	Y	All Sizes	Y	> 2X4 ft	Any Height

Tile Adhesive Range – Summary -I

Parameters	Normal Tile Adhesive	Ezy White Tile Adhesive	White Multipurpose Adhesive
Pack Sizes	20 Kgs & 30 Kgs	20 Kgs	30 Kgs
Colour of Powder	Grey	White	White
Water Mixing Ratio	25%	25%	30-35%
Application Area	Floor & Wall	Floor & Wall	Floor & Wall
Types of tiles can be installed	Ceramic/ Vitrified /Porcelain Tiles	Ceramic/ Vitrified /Porcelain Tiles	Glass Mosaic/Natural Stone / Granite/Marble
Max Tile sizes can be installed	Floor : 2X2 ft Wall: 1X2 ft (Ceramic Tiles Only)	Floor & Wall : 2X2 Ft	Floor & Wall : 2X4 Ft.
Height of walls can be covered	10 Feet	10 Feet	10 feet
Shelf Life	12 Months	12 Months	12 Months
Pot Life	3 Hrs	3 Hrs	3 Hrs
Curing Time	24 Hrs	24 Hrs	24 Hrs
Specification - IS 15477:2019	Type-1 'T'	Type-1 'T'	Type-2 'T' S1
Coverage	2-2.5 Sq. Ft./Kg/3 mm thickness	2-2.5 Sq. Ft./Kg/3 mm thickness	2-2.5 Sq. Ft./Kg/3 mm thickness

Tile Adhesive Range – Summary - II

Parameters	Tile On Tile Adheisve	Stone & Heavy Tile Adhesive	Stone & Heavy Tile Adhesive Advanced
Pack Sizes	20 Kgs & 30 Kgs	20 & 30 Kgs	20 Kgs
Colour of Powder	Grey & White	Grey	Grey & White
Water Mixing Ratio	25%	25%	25%
Application Area	Floor & Wall	Floor & Wall	Floor & Wall
Kind of tiles can be installed	Ceramic /Vitrified /Porcelain Tiles	Large Tiles/ Natural Stone /Granite/Marble	Natural Stone /Granite/Marble
Tile sizes can be installed	Up to 2X4 Ft	Floor : All Sizes Wall: Up to 2X4 Ft	All Sizes
Height of walls can be covered	10 Feet	10 Feet	Any Height
Shelf Life	12 Months	12 Months	12 Months
Pot Life	3 Hrs	2 Hrs	2 Hrs
Curing Time	24 Hrs	24-48 Hrs	24-48 Hrs
Specification - IS 15477:2019	Type-2 'T' S1	Type-2 'T' S1	Type-3 'T' S1
Coverage	2-2.5 Sq. Ft./Kg/3 mm thickness	1-1.25 Sq. Ft./Kg/6 mm thickness	1-1.25 Sq. Ft./Kg/6 mm thickness

Technical Parameters

Parameters	Units	IS 15477:2019 Type 1	IS 15477:2019 Type 2	NTA	TOT
Tensile Adhesion	N/mm2				
Dry Condition		Min 0.5	Min 1	0.56	1.18
Wet Condition		-	Min 1	0.45	1.06
Shear Adhesion	**N/mm2**				
Dry Condition		**1**	**Min 1.25**	**1.1**	**1.45**
Wet Condition		**-**	**Min 1**	**0.93**	**1.35**
Heat Ageing		**-**	**Min 1**	**0.91**	**1.28**
Open Time	**mins**	**NA**	**NA**	**20**	**20**
Adjustability Time	**mins**	**NA**	**NA**	**15**	**15**
Slip Resistance, T	mm	<0.5 mm	<0.5 mm	0.22	0.13
Deformability, S1	mm	S1>=2.5mm, <5mm	S1>=2.5mm, <5mm	2.65	2.76
Classification				Type 1 'T'	Type 2 'T' S1

TOT as compared to NTA provides:

- 2x tensile adhesion strength for both Dry and Wet conditions

- 1.4x shear adhesion strength for dry, wet conditions and heat ageing

- Type 2 requirements met for TOT and Type 1 met for NTA

Benchmarking vs Competitors

Comparison Testing	Normal Tile Adhesive Vs Roff NCTA		Tile On Tile Adhesive Vs Roff NSA	
Test Parameters	SC NTA	Roff - NCTA	SC TOT	Roff - NSA
Flow test @ 0 minutes, mm	170	175	**210**	**190**
Adjustability Time, with ceramic tiles	10	10	15	15
Notchability, 3mm bed notch trowel	Continuous	Continuous	Continuous	Continuous
Adhesion Test as per IS : 15477				
Tensile Adhesion (Wet conditions)	**680**	**590**	4	5.7
Shear Adhesion (Dry condition 24 hrs)	**5.8**	**5.7**	**13**	**12.2**
Shear Adhesion (Dry condition 14 days)	**11**	**9.5**	7.1	7.7
Shear Adhesion (Heat aging conditions)	**6.5**	**6.4**	5.7	5.9

Key Points:

- NTA is better than competitor with respect to key adhesion properties
- High Flow rate and Shear adhesion for TOT over the completion
- In all the parameters, both the products meet the IS standards

Benchmarking vs Competitors

Stones Tile Adhesive Advanced - Grey (Comparative Study)		
Properties	**MYK TA-335 - Grey (Benchmark)**	**AP SC STA Advance Grey**
Mixing ratio- W:P (By weight)	29:100	25:100
Workability, Flow On Table , mm	160	165
Open Time, min	25-30	25-30
Adjustability Time, min	25-30	25-30
Pot Life @ 28℃, Hrs.	2-3	2-3
Shear Strength, KN		
After 24 Hrs.	12.7	**19.4**
Dry condition, 14 days	16.03	**20.81**
Heat ageing - 7 days RT+ 7 days at 70°C	14.81	**27.26**
Wet condition, 7 days RT + 7 days in water	22.33	**26.64**

Key Points:

- **High shear strength** as compared to competitor (1.5x)

- Meets the requirements of IS 15477:2019 Type 3 'T'

Tile Adhesives: APL Vs Competition

APL Products	Saint-Gobin Weber	Piddilite Roff/ Dr. Fixit	MYK Laticrete	Ultratech	Kerakoll	JK Cement
Normal Tile Adhesive	Weberset Premier	Roff New Construction Adhesive - NCA (T01)	Laticrete 305 & 307 Grey	Tilefixo CT	Biotile	111 – Classic Grey & 211 Anti Skid Grey
Ezy White Tile Adhesive	NA	NA	Laticrete 307 White	NA	NA	212 Anti Skid White
Tile On Tile Adhesive Grey & White	Weberset Classic	Roff Non-Skid Adhesive Grey & White	Laticrete 315 Plus Grey & White	Tilefixo VT Grey & White	Biofix Grey & White	222 – Universal Grey Adhesive
White Multipurpose Tile Adhesive	Weberset Nova White	Roff VitroFix Adhesive White T04	Laticrete 325 High Flex White	Tilefixo YT	NA	444- Universal White Adhesive
Stone & Heavy Tile Adhesive	Weber Set Nova Grey	Roff VitroFix Adhesive Grey -T03	Laticrete 325 High Flex Grey	Tilefixo NT Grey	NA	NA
Stone & Heavy Tile Adhesive Advanced	Weberset Firm Grey & White	Roff ExtroFix Adhesive Grey	Laticrete 335 Super Flex Grey	Tilefixo Xtraplus Grey & White	Bioflex Grey & White	555- Platinum Grey Adhesive & 666 Supreme White Adhesive

SMARTCARE

2. Products for Filling of Joints/Gaps of Tiles & Stones

Tile Grout - Cement Based

Cement based, **easy to mix** joint filler **available in 9 brilliant shades**

Excellent adhesion makes it sustainable & durable for long time

Water repelling impermeable joint filler suited for domestic and commercial floors, walls etc.

Non dusting and **easy to clean**

Meets the requirements of **ANSI A118.6** (Specification for tile grouts)

Pack: 1 Kg
Available Shades: 9
Shelf Life: 1 Year
Pot Life: 1 hour.

<u>Recommended Usage:</u> For filling of joints/gaps of all kinds of Tiles, Stones, Granites & Marbles

Application Process:

✓ Tile joints must be clean and free from oil, dust & other loose particles

✓ **Add powder in approx. 30% water** and mix to get lump free paste

✓ Fill the grout paste in tile joints using rubber float **within 30 minutes** of mixing ensuring that the joints are filled properly.

✓ Remove excessive grout from the tiles gently & allow it to dry for 24 hrs.

Coverage Sheet - Cement Tile Grout					
Commonly used Tile Dimensions			Coverage (Tile Area) in Sq. Ft. per Kg for width of Tile Joints of		
Tile Length (Ft)	Tile Width (Ft)	Tile Thickness (mm)	**3 mm**	**4 mm**	**5 mm**
1	1	10	28 Sq.Ft.	20 Sq.Ft.	16 Sq.Ft.
1	1	20	13 Sq.Ft.	10 Sq.Ft.	8 Sq.Ft.
1	2	10	36 Sq.Ft.	27 Sq.Ft.	22 Sq.Ft.
1.5	1.5	12	34 Sq.Ft.	26 Sq.Ft.	20 Sq.Ft.
2	2	12	45 Sq.Ft.	34 Sq.Ft.	27 Sq.Ft.
2	4	12	60 Sq.Ft.	45 Sq.Ft.	36 Sq.Ft.

Smart Care Tile Grout Power Additive

Water Resistance : Improves **water resistance** of Cement based Tile Grout (CTG)

Flexibility : Provides excellent flexibility to CTG to fill up to **12 mm gaps** of tiles

Tensile Bond Strength: Improves bonding strength of CTG to the substrate

Compressive Strength: Improves compressive strength of Cement Based Tile Grout

Shrinkage Resistance: Reduces surface crack formation on the surface of CTG

Gloss: Provides more shine/glossiness to the Cement Based Tile Grout

Pack: 200 ml & 1 Litre
Color: White
Shelf Life: 1.5 Years

Recommended Usage: Single component polymer modified additive to be mixed with SmartCare Tile Grout – Cement Based to enhance the performance and durability of the cement tile grout.

Application Process:

✓ **For mixing with Tile Grout :** Take **200 ml Tile Grout Power Additive** in a container and then add **150 ml water** into it and mix them well. Now add **1 Kg Cement Based Tile Grout Powder** slowly into it to get uniform & lumps free paste. Add some more water to get desired consistency if required. Now apply the paste in the tile joints.

✓ **For application on existing & cured CTG to increase its gloss:** Apply a uniform coat of Tile Grout Power Additive using brush over existing cured Cement Tile Grout after minimum 24 hrs of its application. Protect it from direct sunlight / rains for at least 24 hrs for proper curing.

Tile Grout - Epoxy 2K

- **2 Component epoxy based**, easy to mix joint filler **available in 26 brilliant shades**

- **Excellent adhesion** makes it sustainable and durable up to the life of the tile

- Non-toxic, **chemical resistant** & easy to clean

- Impervious ensures **excellent waterproofing** for wet areas

- Ideal for areas where **hygiene maintenance** is critical like Laboratories, Breweries, Clinics and Bathrooms

Pack: 1 Kg
(Resin : Hardener)
(600 g : 400 g)
Available Shades: 26
Shelf Life: 1 Year
Pot Life: 1 hour

Recommended Usage: For filling of joints/gaps of all kind of Tiles, Stones, Granites & Marbles

Application Process:

- ✓ Tile joints must be clean and free from oil, dust & other loose particles
- ✓ **Mix base & hardener completely in the given packs**. Partial mixing is not allowed.
- ✓ Apply the grout paste firmly by the hard rubber squeeze into joints ensuring that the joints are filled properly.
- ✓ Clean of the surplus grout from tile joints and surface **within 25 minutes** using a wet sponge & level it with tile surface.

Coverage Sheet – Epoxy Tile Grout						
Commonly used Tile Dimensions			Coverage (Tile Area) in Sq. Ft. per Kg for width of Tile Joints of			
Tile Length (Ft)	Tile Width (Ft)	Tile Thickness (mm)	3 mm	5 mm	8 mm	10 mm
1	1	10	32 Sq.Ft.	19 Sq.Ft.	12 Sq.Ft.	10 Sq.Ft.
1	1	20	16 Sq.Ft.	10 Sq.Ft.	6 Sq.Ft.	5 Sq.Ft.
1	2	10	41 Sq.Ft.	26 Sq.Ft.	16 Sq.Ft.	13 Sq.Ft.
1.5	1.5	12	40 Sq.Ft.	24 Sq.Ft.	15 Sq.Ft.	12 Sq.Ft.
2	2	12	54 Sq.Ft.	32 Sq.Ft.	20 Sq.Ft.	16 Sq.Ft.
2	4	12	72 Sq.Ft.	43 Sq.Ft.	27 Sq.Ft.	22 Sq.Ft.

Tile Grout - Epoxy 3K

3 Component epoxy based, easy to mix joint filler **available in 10 brilliant shades**

Excellent adhesion makes it sustainable and durable up to the life of the tile

Non-toxic, **chemical resistant** & easy to clean

Impervious ensures **excellent waterproofing** for wet areas

Ideal for areas where **hygiene maintenance** is critical like Laboratories, Breweries, Clinics and Bathrooms

Pack: **1** Kg & **5** Kgs
Resin + Hardener : 350 g
Filler: 650 g (1 Kg Pack)
Available Shades: 10
Shelf Life: 1 Year
Pot Life: 1 hour

Recommended Usage: For filling of joints/gaps of all kind of Tiles, Stones, Granites & Marbles

Application Process:

✓ Tile joints must be clean and free from oil, dust & other loose particles

✓ **Mix resin & hardener properly then add the filler slowly to get uniform paste**.

✓ Apply the grout paste firmly by the hard rubber squeeze into joints ensuring that the joints are filled properly.

✓ Clean of the surplus grout from tile joints and surface **within 25 minutes** using a wet sponge & level it with tile surface.

Coverage Sheet – Epoxy Tile Grout						
Commonly used Tile Dimensions			Coverage (Tile Area) in Sq. Ft. per Kg for width of Tile Joints of			
Tile Length (Ft)	Tile Width (Ft)	Tile Thickness (mm)	3 mm	5 mm	8 mm	10 mm
1	1	10	32 Sq.Ft.	19 Sq.Ft.	12 Sq.Ft.	10 Sq.Ft.
1	1	20	16 Sq.Ft.	10 Sq.Ft.	6 Sq.Ft.	5 Sq.Ft.
1	2	10	41 Sq.Ft.	26 Sq.Ft.	16 Sq.Ft.	13 Sq.Ft.
1.5	1.5	12	40 Sq.Ft.	24 Sq.Ft.	15 Sq.Ft.	12 Sq.Ft.
2	2	12	54 Sq.Ft.	32 Sq.Ft.	20 Sq.Ft.	16 Sq.Ft.
2	4	12	72 Sq.Ft.	43 Sq.Ft.	27 Sq.Ft.	22 Sq.Ft.

Tile Grout Range - Summary

Parameters	Cement Tile Grout	Epoxy 2K Tile Grout	Epoxy 3K Tile Grout
Components	1K (Powder)	2K (Resin + Hardener)	3K (Resin + Hardener + Filler)
Chemistry	Cement Based	Epoxy Based	Epoxy Based
Pack Sizes	1 Kg	1 Kg	1 Kg & 5 Kgs
No of Shades Avialable	9 Shades	26 Shades	10 Shades
Mixing Ratio	**30% by Water**	**60% Resin + 40% Hardener**	**(Resin + Hardener) 35% + (Filler) 65%**
Application Area	Joints of all kinds of tiles	Joints of all kinds of tiles	Joints of all kinds of tiles
Usable for Joint Width (mm)	5 mm	10 mm	10 mm
Pot Life	**1 Hrs**	**1 Hrs**	**1 Hrs**
Cleaning time after application	**Within 30 Minutes**	**Within 25 Minutes**	**Within 25 Minutes**
Curing Time	24 Hrs	24 Hrs	24 Hrs
Trafficable Time	24 Hrs	24 Hrs	24 Hrs
Water Registance	Good	Excellent	Excellent
Chemical Resistance	Good	Excellent	Excellent
Compressive Strength-MPa (After 28 days of drying)	**20 MPa**	**28 MPa**	**28 MPa**
Water Absorption	No absorption	No absorption	No absorption
Shrinkage	No shrinkage	No shrinkage	No shrinkage

Tile Grouts & Other Products: APL Vs Competition

APL Products	Saint-Gobin Weber	Piddilite Roff/ Dr. Fixit	MYK Laticrete	Ultratech	Kerakoll	JK Cement
SC Cement Tile Grout	Weber Color Fine	Roff Rainbow Tile Mate T-11	Laticrete 600 Un-Sanded Grout	NA	NA	Premium Cementitious Grout
SC Tile Grout Power Additive	Weber Groutadd	Rainbow Tile Mate Wide Additive -14	Laticrete 1776 Grout Admix Plus	NA	NA	NA
SC Epoxy Tile Grout 2K	Weberepox 2K	Roff Starlike -T34	Laticrete SP-100 Duo	NA	Fugalite Eco	NA
SC Epoxy Tile Grout 3K	Weber Joint Poxy & Weber Joint Poxy Fill	Rainbow Tile Mate Epoxy Grout - T13	Laticrete SP-100	NA	NA	Premium Epoxy Grout
SC Tile Cleaner	Weberklin Ceraplus	Roff Cera Clean T-16	Laticrete Clenza TC	NA	Delta Plus Eco	NA
SC Block Joining Mortar	NA	Weber Block Fix	Laticrete AAC Block Adhesive	FixoBlock	NA	NA

3. Product for Cleaning of Tiles & Stones

Smart Care Tile Cleaner

Removes stains easily on surface of tiles.

Effective for **ceramic, porcelain & vitrified** tiles.

An excellent solution to **degrease the tile surface with deposits of soaps, scum, salt & mineral.**

Pack: 500 ml & 1 litre
Color: Blue
Shelf Life: 2 Years

Recommended Usage:

✓ Cleaning the surface of floors in kitchen, bathrooms and areas where efficient cleaning is required.

✓ Removal of tile grout stains and degreasing of bathroom and kitchen tiles.

✓ An excellent material for cleaning the surface before application of epoxy products

✓ Daily purpose tile cleaning in bathrooms and floors.

Application Process:

✓ For removal of faint or mild blemish spots/layer, **dilute Smart Care Tile Cleaner in the ratio of 1:1 with water**. Use a soak cloth/ sponge/ scrubber and clean the surface till the spots/layers are removed.

✓ For difficult spots/layers neat Smart Care Tile Cleaner liquid **(without mixing water)** is recommended for cleaning.

SMARTCARE

4. Product for fixing of AAC Blocks, Concrete Blocks & Fly Ash Bricks

Block Joining Mortar

No water curing is required after fixing of blocks

Long pot life ensures larger quantities of material being mixed

Excellent adhesion & **higher compressive strength (12.5 MPa)**

Recommended Usage: For fixing of AAC Blocks, Concrete Blocks & Fly Ash Bricks

Application Process:

- ✓ All surfaces should be structurally sound, clean and free from all dirt, oil & loose particles

- ✓ Mix Block Joining Mortar with Approx. **25% of potable water** (8 to 10 litres of water to 40 kg Bag) by continuous stirring for 3-5 minutes to get a smooth, thixotropic & lump free mix/paste & wait for another 5 minutes as maturation time

- ✓ Place the mixed mortar on the block work in **thin layers of 3-4 mm** (or as required by site engineers) using trowel and place the next layer of blocks on the mortar

- ✓ Keep joints between the blocks as required by the site engineers, fix side block by applying mortar on vertical side and fill the joints with the mixed mortar, using a trowel

- ✓ Check the plumb of the wall while laying the blocks to keep the walls perfectly vertical to the plumb

Coverage: 2 - 2.5 Sq. Ft./Kg for a bed of 3 mm thickness

Pack: 40 Kg
Color: Grey
Shelf Life: 1 Year
Pot Life: 5 hrs

Waterproofing Range

Preventive & Curative solutions to all your waterproofing problems

SmartCare Cemboost 200

SmartCare RepairMax 200

SmartCare Damp Block 2K Prime

Common Dampness Issues In Houses

Dampness in interior walls | Source – Cracks on exterior walls

Common Dampness Issues In Houses

Dampness in interior ceiling | Source – Leakage from Terrace

Common Dampness Issues In Houses

Dampness near windows | Source – Gaps in joints between wall and window

Common Dampness Issues In Houses

Dampness at skirting level | Source – Ground water rising

Common Dampness Issues In Houses

Dampness & efflorescence on walls outside bathrooms

To Prevent these kind of dampness issues in our homes, we need to understand the concept and products available for waterproofing.

Concept of Waterproofing

The treatment or protective measure that makes a substrate water-resistant or prevents it from the unwanted penetration of water under hydrostatic pressure and other external forces like capillary rising is called waterproofing.

It is a process that ensures a seamless system is established through the application of elastic and durable membranes/coatings which help to preserve the strength and the durability of concrete/plaster surfaces of a building.

Types of Waterproofing: Based on process of treatment, water proofing is categorized in 3 types:

1. **Integral Waterproofing:** This kind of waterproofing gets done during construction of the building. For example – mixing of construction chemicals in cement during construction.

2. **Negative Side Waterproofing:** This waterproofing gets done from the opposite side of the source of water. For example – application of waterproof coating on interior walls.

3. **Positive Side Waterproofing:** This waterproofing get done from the same side of the source of water. For example – application of waterproof coating on terrace & exterior walls.

Integral Waterproofing

adding a chemical to **cement during the construction stage**

Works for both **plasters and for slabs**

waterproofing at the **heart of the house**

Lasting solution to **waterproofing problems**

Positive Side Waterproofing

- Treatment / coatings gets done from the same side of the structure as the source of water

- It stops water to enter in the substrate and prevents it from the structural damage happens due to presence of dampness.

- It gets done mostly on terrace & external walls of the house to prevent rainwater to come inside the house as well as it gets done inside the bathrooms & water tanks to prevent the water to come outside of the structure.

Rain

Crack on plaster

Stagnant Water

Waterproofing coating
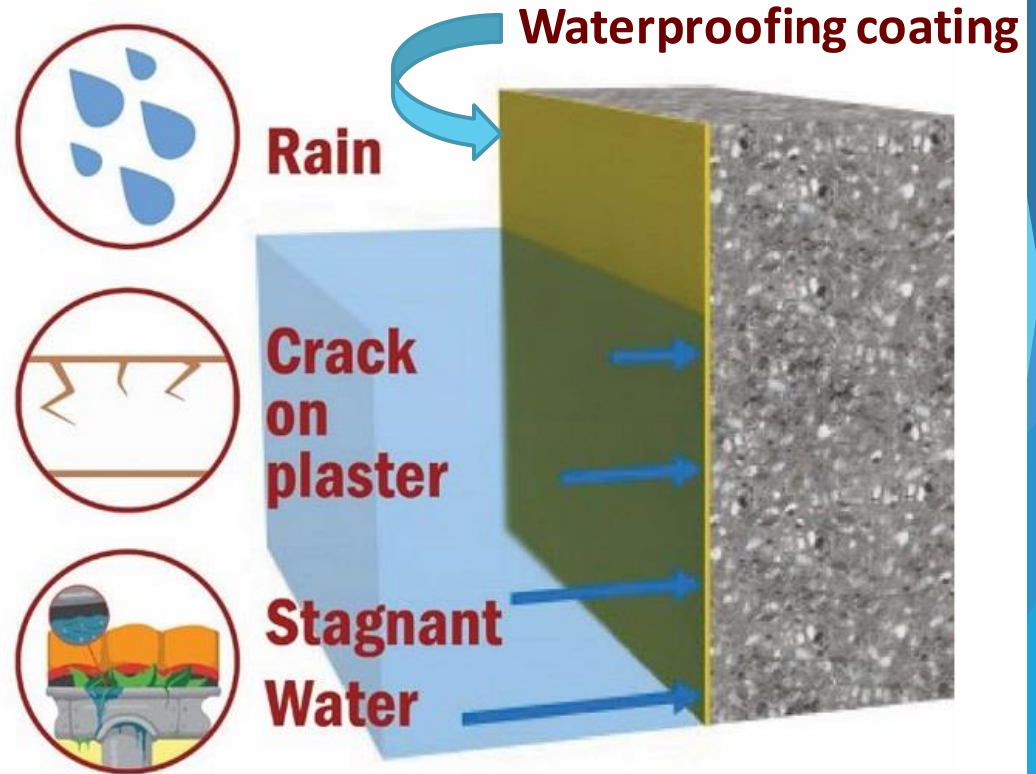
Negative Side Waterproofing

- Treatment / coatings gets done from the opposite side of the structure as the source of water

- It stops water to come out from the walls and increases the life of painting system on walls to maintain the beauty of the buildings for longer period.

- It gets done mostly on interior walls of the buildings to prevent the dampness which comes from bathroom & ground through capillary rising, & from exterior walls & terrace through cracks.
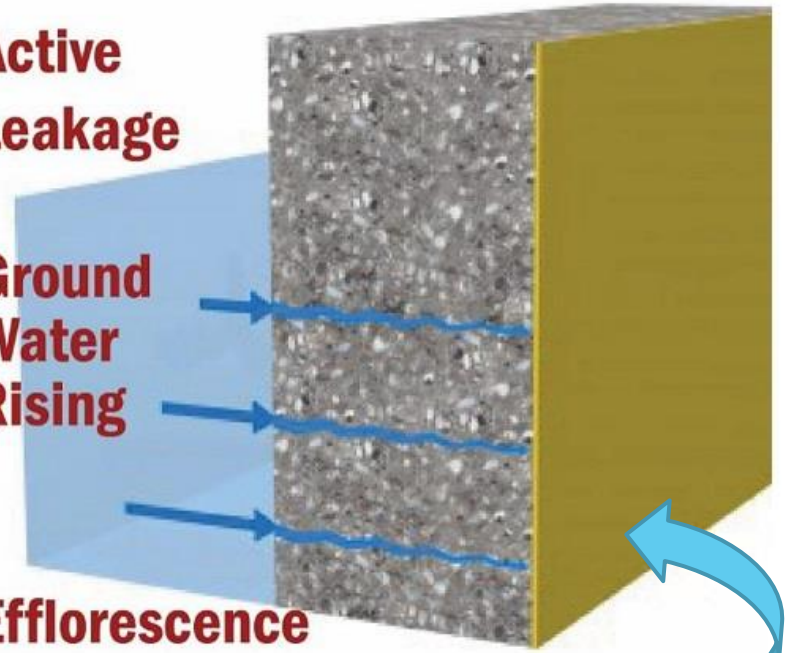

Active Leakage

Ground Water Rising

Efflorescence

Waterproofing coating

5. Products for Waterproofing

Smart Care Cemboost 200

Water Impermeability: Improves **waterproofing** of concrete & hence increases durability

Compatibility : Mixes easily with concrete/mortar mixes.

Workability: Improves **workability** of freshly mixed cement concrete

Compressive Strength: Imparts **higher compressive strength** even at more than recommended dosage

Shrinkage Resistance: Resists crack formation due to drying shrinkage

Corrosion Resistance: It resists corrosion of reinforcement steel bars due to water and chloride ions penetration

Pack: 1, 5, 10 & 20 Litres
Color: Clear
Shelf Life: 2 Years

Recommended Usage: It is an integral liquid waterproofing compound with advanced formulation and superior plasticizing additives for cement concrete, mortar and plasters.

Recommended Dosage:

✓ **For Concrete & Plaster: 200 ml Cemboost 200** to be added with each **50 Kgs bag of cement**.

Application Process:

✓ Mix cement and aggregates in dry condition in the mixer. Now add 50-60% of clean water and mix it for 2-3 minutes. Add Cemboost 200 in the remaining water as per the recommended dosage then add it to the concrete/mixture and mix it for another 2-3 minutes.

Comparative Features – SC Cemboost 200 Vs Competitor

Description	Control (No IWC added)	Competitor Product	Cemboost 200
Parameters for Cement : Sand Mortar - 1:3			
Cement (Kg)	1.5	1.5	1.5
Sand (Kg)	4.5	4.5	4.5
Water (Kg)	**0.727**	**0.69**	**0.618**
Flow (mm)	160	160	160
Water Reduction	**0%**	**5%**	**7.50%**
Recommended Dosage	NA	200 ml/bag	200 ml/bag
Compressive Strength, 1 Day, Mpa	6.5	7	**8**
Compressive Strength, 3 Days, Mpa	13	14	**16.5**
Compressive Strength, 7 Days, Mpa	18.5	22	**28**
Compressive Strength, 28 Days, Mpa	34	38	**42.4**

Specification Followed: Meets and exceeds requirement of **IS 2645 for water impermeability & IS 9103 for water reduction.**

Features & Benefits of Smart Care Cemboost 200

Features	Benefits
Water Reduction – Lower Water Cement Ratio	• Less Porous, more compact mortar/plasters – less shrinkage cracks vs competition. • Less Rework, Higher strength of concrete vs competition
Improves Water Impermeability	• Reduces water ingress, prevents rising dampness
Higher Compressive Strength	• Improves the strength of Cement Structure. • Quicker work due to faster gain of strength .
Prevents Shrinkage Cracks	• Reduces cracks on drying of cement plasters/concrete, less rework
Workability	• Easy to Use in plastering due to better flowability of material. • Easier to do concreting : No air entrapment due to compactness • Abuse resistant at site – Performs well at slightly higher dosage
Resists Water & Chloride Ions Penetration	• Doesn't let the iron rods rusted makes structure stronger
Superior Compatibility	• Universal Usage with all cement and sand varieties- "M sand"

Smart Care Repair Max 200 (SBR)

Multipurpose: Robust product that is economical, easy to handle and has multiple applications as waterproofing coat, bond coat & mixing in repair mortar

Compatibility: Faster mixing with cement increases work efficiency

Strong Bonding: Having more **solid content (40%)**, it bonds strongly to concrete, plasters, masonry & cementitious surfaces

Water Impermeability: Enhances water impermeability of plaster mortar with Improved flexibility, low water cement ratio and resistance to water penetration

Shrinkage Resistance: Resists crack formation due to drying & aging shrinkage

Pack: 500 ml, 1, 5, 10 & 20 Liters
Color: White
Shelf Life: 18 Months

Areas of usage: For waterproofing of all concrete/plaster surfaces like terraces, chhajjas, floors & walls, beams & pre-cast slabs etc.

Application Process:

✓ **As waterproofing coat on horizontal surfaces like terraces & chhajjas: 2 Kgs of cement and 1 Litre of Repair Max 200 (2:1 Ratio)** to be mixed to get uniform slurry. Apply 2 coats of the mixture on the terrace/chhajjas **with coverage of 20-22 Sq.Ft./litre/2 coats**.

✓ **For mixing with Repairing/Plastering Mortar :** Repair Max 200 to be added **7% of weight of the cement** for preparation of Repairing/Plaster Mortar(For Ex. – 3.5 litres of Repair Max 200 to be added with 50 Kgs of Cement).

✓ **As a bonding agent (Bond Coat):** For strong adhesion of new plaster on old concrete/plaster, **1 coat of mixture of Cement and Repair Max 200 (1:1 ratio) to be applied with coverage of 45-50 Sq. Ft. per litre.**

Features & Benefits of Smart Care Repairmax 200

Parameters	Competitor Product	Repairmax 200	Benefits of Using AP Repairmax 200
Solid Content	~38%	**~40%**	• Ease of mixing with Cement • No water addition required for mixing for WP coating • Provides excellent waterproofing
Compressive Strength (@ 10% dosage in PMM)	14.52 Mpa	**16.42 Mpa**	• Enhances life of plaster • Reduces shrinkage crack formation in plaster
Flexural Strength (@ 10% dosage in PMM)	4.24 Mpa	**5.13 Mpa**	• Enhances bonding strength of Cement • Reduces de-bonding of plaster
Surface Dry Time	20 mins	**25 mins**	• Works excellent as a bond coat • Reduces wastage of plaster mortar

Smart Care Damp Block 2K - Prime

Anti Efflorescence & Anti Carbonation: Provides lasting protection against efflorescence & carbonation

Water Proofing: Resists up to 5 Bars of positive hydrostatic pressure

Easy To Apply: Very easy to apply which forms a seamless coat without any joints

Excellent Adhesion & Elongation: Due to **high solid content (40%)**, it provides excellent bond strength with cementitious surfaces & elastic film with 100% elongation

Pack: 3 Kgs & 15 Kgs
Color: Grey
Shelf Life: 1 Year

Areas of usage:

- ✓ **Waterproofing of sunken areas:** Bathrooms, toilets, balconies, water tanks internals walls, terraces etc.
- ✓ **Masonry surface:** Brick walls/concrete slabs subjected to damage from moisture /efflorescence

Application Process:

Surface	Application Process	Warranty
Concrete/ Bricks	Mix the powder (2 Kgs) in the polymer (1 Kg) and make a uniform slurry. **Apply 2 coats in 24 Sq. Ft. area.** Allow each coat to dry for 4-6 hrs. Plaster can be done within 48 hrs of application.	**3 Years**
Plaster	Mix the powder (2 Kgs) in the polymer (1 Kg) and make a uniform slurry. **Apply 2 coats in 24 Sq. Ft. area.** Allow each coat to dry for 4-6 hrs. Now putty, primer and paint can be applied on the walls.	**1 year**

Forced Coverage: 8 Sq. Ft./Kg /2 Coats

Note: It can be applied in water tanks as well followed by 3-5 mm cement screed.

Features & Benefits of Smart Care Damp Block 2K Prime

Features	Damp Block 2K Prime	Competitor 2K	Benefits to User
% Elongation – 14 days	115%	60%	• Highly elastic film which withstands surface expansion & contraction twice better • Longer life of the film, Peace of Mind • 3 Years Warranty if applied on brick/slab directly. • 1 Year Warranty if applied on plaster level only.
Pull out Strength	2 MPa	1 MPa	• Double the bonding strength with the substrate • Protection from damages during site work
Efflorescence Resistance	Anti efflorescence	No Claim	• Additional feature of the product with 3 yrs warranty on the brick. • You can increase your earnings by recommending about anti efflorescence.
Loyalty Program Rewards	2X	X	• Double the benefit in Neenv Program

Parameter	SC Cemboost 200	SC Repairmax 200	SC Damp Block 2K Prime
CH 11 Integral Waterproofing Products Range - Summary			
Chemistry	**Poly Carboxyl Ether (PCE)**	**Styrene Butadiene Rubber (SBR)**	**2 Component Waterproof Coating**
Physical Appearance	Clear liquid	White liquid	Grey
Shelf Life	24 Months	18 Months	1 Year
Pack Sizes	200 ml, 1, 5, 10 & 20 Litres	500 ml, 1, 5, 10 & 20 Litres	3 Kgs & 15 Kgs
Recommended Usage	**To be mixed with Cement to prepare Concrete & Plaster**	**To be mixed with Cement for WP Coat, Bond coat & Plaster Mortar)**	**To be used as waterproof coating for Bathrooms & Interior Walls**
Recommended Dosage	200 ml for 50 Kgs of cement	50% of cement for WP coat, 100% for Bond coat & 7% for PMM	**Powder : Polymer = 2:1 (No water to be added)**
Compatibility	**Excellent (with cement)**	**Excellent (with cement)**	**Compatible for all concrete and masonry & brick surfaces for waterproofing**
Workability	Improves Workability	NA	Easy to apply on cementitious surfaces
Water Cement Ratio	Reduces water requirement	Reduces water requirement	No water is required
Water Impermeability	**Improves WI**	**Improves WI**	**Provided waterproofing to the surface**
Compressive Strength	Improves CS	Improves CS	NA
Shrinkage Cracks	**Reduces shrinkage cracks**	**Reduces shrinkage cracks**	**Coating doesn't crack (100% Elongation)**
Bond Strength	NA	Improves bond strength	Bonds strongly with surface
WP Warranty	**NA**	**NA**	**3 Years WP Warranty (Positive Side)**

IWC Range : APL Vs Competition

APL Products	Piddilite Roff/ Dr. Fixit	Ultratech	Berger	Dulux
Smart Care Cemboost 200	Pidiproof LW+	Weather Pro WP+200	CementMix Plus	NA
Smart Care Repairmax 200	Pidiproof URP	Seal & Dry SBR	Latex Plus & Advanced Latex Plus	Aquatech Waterproof Repair Polymer
Damp Block 2K Prime	Pidifin 2K/Damp Guard	Flex & Hi Flex	Wall Shield 2K/ Latex Shield 2K /Damp Stop	Aquatech Water Block 2K

SMARTCARE

6. Products for Filling Joints & Gaps of Different Surfaces

Smart Care Xtreamoseal Neutral

Non-corrosive: Applicable on metallic surfaces like aluminium etc and all other surfaces

Neutral Curing: Non-acetoxy based neutral curing, so applicable on alkaline surfaces like cement plasters, concrete etc.

Excellent Flexibility: Can withstand joint movement of up to **± 25%**

Durable: Forms a highly durable and flexible rubber seal which is **non-paintable**

Odourless: Application friendly as it is odourless

Antifungal: ISO 846 certified protection from fungus

Water & UV Resistant: Effective waterproofing & sealing protection

Pack: 280 ml
Color: White, Black & Clear
Shelf Life: 1 Year

<u>**Areas of usage:**</u> Can be used for filling of gaps of wood, metal, masonry surfaces, glass & sanitary joints.

<u>**Application Process:**</u>

✓ Clean all loose particles and dust from the joints first ensuring that the surface must be dry & sound

✓ Cut the nozzle & tip of the cartridge at a 45-degree angle according to joint dimensions and apply it using sealant gun. Use masking tape on both the sides of the joint to get neat & uniform application

✓ Use a pallet knife or wet finger for tooling the surface to remove air bubbles

<u>**Coverage: 42 running feet for joints of 4 mm width & 6 mm depth**</u>

Smart Care Xtreamoseal GP

Water & UV Resistant: Effective waterproofing & sealing protection

Excellent Flexibility: Can withstand joint movement of up to **± 25%**

Durable: Forms a highly durable and flexible rubber seal which is **non-paintable**

Antifungal: ISO 846 certified protection from fungus & mould

Acetic Curing: Acetoxy based curing, so applicable on non-alkaline surfaces like wood, metal, glass & sanitary joints, glazed surfaces, unplasticized polyester etc.

Pack: 280 ml
Color: White, Black & Clear
Shelf Life: 18 months

Areas of usage: Can be used for filling of gaps of wood, metal, glass & sanitary joints, glazed surfaces, unplasticized polyester & painted wood etc.

Application Process:

✓ Clean all loose particles and dust from the joints first ensuring that the surface must be dry & sound

✓ Cut the nozzle & tip of the cartridge at a 45-degree angle according to joint dimensions and apply it using sealant gun. Use masking tape on both the sides of the joint to get neat & uniform application

✓ Use a pallet knife or wet finger for tooling the surface to remove air bubbles

Coverage: 42 running feet for joints of 4 mm width & 6 mm depth

Xtreamoseal Silicone Sealants - Summary

Properties	Xtreamoseal Neutral	Xtreamoseal GP
Sealant Type	Silicone Sealant	Silicone Sealant
Cure Method	**Neutral**	**Acetoxy**
Joint Movement/Elasticity	±25%	±25%
Water & UV Resistant	Yes	Yes
% Elongation	**542%**	**520%**
Odourless	Yes	No
Corrosion Resistant	Yes	No
Universal Applicability	**Yes (Can be applied on all surfaces)**	**No (Not recommended for alkaline & GI surfaces)**
Pack Size	280 ml Cartridge	280 ml Cartridge
Shelf Life	12 Months	18 Months
Shades Available	White, Black & Clear	White, Black & Clear
Tooling/Skin Time	**2-3 min**	**6-7 min**
Tack Free Time	30 min	30 min
Drying Rate at 25-27°C	**3 mm/day**	**2 mm/day**
Sagging in vertical application	No Sagging	No Sagging
Tensile Strength (7 Day)	1.3-1.5 Mpa	1.3 Mpa

Thank You