



# **TECHNICAL DATASHEET**

# FIXOBOND" GenX

**Cementitious Based Polymer Modified Tile Adhesive for Ceramic Tiles** 















www.ascolite.in | info@ascolite.in VERSION 3 (Apr. 2024)

Strong Bonding Capabilities





# **PRODUCT DESCRIPTION**

**FIXOBOND GENX** is a cementitious polymeric tile adhesive in grey colour, designed for fixing ceramic tiles and related materials securely onto interior walls (up to 4 feet) and floor surfaces with concrete or cement-plastered substrates, ensuring a lasting bond.

# INDEX

STANDARD COMPLIANCE	1
KEY FEATURES	.1
TECHNICAL INFORMATION	.1
APPLICATION COMPATIBILITY	.1
APPLICATION METHOD	2
NOTCHED TROWEL GUIDELINES	<u>3</u>
PACKAGING	<u>5</u>
COVERAGE	5
SHELF LIFE	<u>5</u>
HEALTH & SAFETY GUIDELINES	<u>5</u>
TOOLS & ACCESSORIES	5
DISCLAIMER	<u>6</u>



# **STANDARD COMPLIANCE**

**FIXOBOND GENX** complies with the Type 1T specifications outlined in "**IS 15477: 2019** - Adhesives for ceramic, mosaic, and stone tiles." Additionally, it aligns with class C1T, which designates it as a cementitious (C), slip resistant (T) in accordance with **EN 12004: 2017**.

### **KEY FEATURES**

- Strong bonding capabilities
- Suitable for both thin & medium bed applications
- Low VOC (Volatile Organic Compounds)
- Suitable for a variety of general purpose applications
- Easy to apply

### **TECHNICAL INFORMATION**

#### APPLICATION PROPERTIES

PROPERTY: TEST METHOD	TYPICAL VALUES	
Appearance	Grey powder	
Bulk density	1450 to 1550 kg/mm <sup>3</sup>	
Water demand @ 27 ± 2°C ambient & water temperature	21 $\pm$ 2% (by weight)	
Mixing ratio @ $27 \pm 2^{\circ}$ C ambient & water temperature (Powder : Water)	approx. 3 : 1 (by volume)	
Pot life @ 23 ± 2°C	1 hour 20 minutes $\pm$ 10 minutes	
@ 27 ± 2°C	50 minutes $\pm$ 10 minutes	
@ 35 ± 2°C	40 minutes ± 10 minutes	
Open time @ 23 ± 2°C	15 – 20 minutes	
@ 27 ± 2°C	10 – 15 minutes	
@ 35 ± 2°C	5 – 10 minutes	
Floor grouting @ $27 \pm 2^{\circ}C$	24 hours	
@ 35 ± 2°C	16 hours	
Light foot traffic @ $27 \pm 2^{\circ}C$	24 hours	

@ 35 ± 2°C	16 hours
Ready for use	14 days
VOC content	< 0.5 gm/kg
Application temperature (Substrate & Laying material)	+5°C to +35°C
Service temperature	- 5°C to +70°C
Final bed thickness	3 mm – 12 mm

#### PERFORMANCE PROPERTIES AS PER IS 15477: 2019 (TYPE 1T) @ 27 ± 2°C

PROPERTY: TEST METHOD	TYPICAL VALUES
Tensile adhesion strength – dry condition @ 28 days	$\geq$ 0.60 N/mm <sup>2</sup>
Shear adhesion strength – dry condition @ 28 days	≥ 1.00 N/mm <sup>2</sup>
Open Time	10 – 15 minutes
Adjustment time	5 – 15 minutes
Slip resistance (T)	≤ 0.5 mm

#### PERFORMANCE PROPERTIES AS PER EN 12004: 2017 (C1T) @ 23 ± 2°C

PROPERTY: TEST METHOD	TYPICAL VALUES	
Tensile adhesion strength - initial condition @ 28 days (dry condition)	$\geq$ 0.50 N/mm <sup>2</sup>	
Open time	$\geq$ 0.5 N/mm <sup>2</sup> @ 20 minutes	
Slip resistance (T)	≤ 0.5 mm	
condition) Open time	≥ 0.5 N/mm <sup>2</sup> @ 20 minutes	

# **APPLICATION COMPATIBILITY**

#### AREAS OF APPLICATION

Tiling of internal floors and internal walls up to 4 feet.

#### SUITABLE SUBSTRATE

Concrete, cement renders, cement screeds and **ASCORENDER**.







#### SUITABLE LAYING MATERIAL

Ceramic & cement mosaic tiles.

# **APPLICATION METHOD**

#### SUBSTRATE PREPARATION

 The substrate must be cleaned, levelled, fully cured, compact, stiff, undamaged and devoid of debonding agents.



- Any contaminants that impairs bonding must be mechanically removed before the tile is installed including off-cuts, sawdust, nails, screws, loose plaster and wood need to be carefully removed using a steel wire brush, vacuum cleaner, moist sponge or even a grinder if necessary.
- The substrate must be plumb, levelled, and true, with deviations from the necessary plane not to exceed ¼ inch in 10 feet (6 mm in 3 m). Make sure you use ASCORENDER (Grey or White) to level any substrate that needs to be plumbed. It could be necessary to utilise FIXOBOND AD as a bonding agent along with ASCORENDER. Contact our technical team for a comprehensive process and verification.
- Use water to clean a dry, dusty surface and then sweep away any extra water.

#### Notes:

- The required tensile strength of the substrate should be >0.5/mm<sup>2</sup>.
- Add 11.7 litres of water and 800ml of FIXOBOND AD
   with 50 kg of ASCORENDER.

#### MIXING

A 20 kg bag will require roughly 21±2% clean water by weight to reach a slump-free consistency. If weight mixing isn't an option, volume mixing can be done instantly with FIXOBOND GENX in a clean vessel or container. Mix 3.8 – 4.6 litres of clean water with 20 kg powder to reach a slump-free consistency.





 Use a slow speed mechanical mixer and mix the powder into the water for approximately 5 minutes. The mixture should have thixotropic characteristics and a smooth paste consistency.



- After letting the mixture slake for 2 3 minutes and remixing it for another 2 - 3 minutes, the adhesive is ready to be applied.
- The adhesive should have the right consistency so that it can be applied with a notched trowel of the right size without sagging.

#### **APPLICATION**

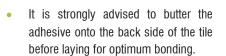
- The installation of tiles must strictly correspond to EN 12004: 2017 and IS 15477: 2019 specifications.
- It is imperative to clean the back of the tile and ensure it is clear of any dust, filth, debris and/or releasing agent before beginning the tile installation procedure. If normal dusting and water cleaning are ineffective, ASCOCLEAN BTC can be used to clean the back side of the tile.
- To ensure full bedding of the tile, the right notch trowel size needs to be chosen according to the size and kind of tiles being used.
- Use the plain side of the appropriate notch trowel to apply the adhesive to the prepared SSD substrate





before it surpasses its permitted pot life span. The adhesive must be distributed uniformly, making sure there are no voids or thick spots.

Whether using a notched trowel horizontally or vertically, pay attention to the direction in which the adhesive is combed using the notched side of the trowel, keeping in mind the direction in which air can be released easily while breaking the notches during tile laying. While applying, refrain from whirling the product.



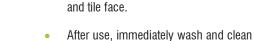
- Verify that the applied adhesive remains within the permissible open time and proceed with the tile installation, positioning the tiles in a manner that facilitates the escape of air from beneath the tiles. This can be done by leaving small gaps between the tiles or by using spacers.
- The open time will vary depending on the type of adhesive, substrate and the environmental conditions.
- Ensure a secure bond between the tile and the adhesive by applying pressure to achieve complete contact and the desired level of the tile. Utilize a rubber mallet, along with a spirit level or plumb bob, to attain linear alignment

and even surfaces. Any voids or honeycomb formations must be avoided. To confirm that the adhesive is fully in contact with the tile, occasionally slightly twist and lift to inspect the tile just after application. If the desired contact area is not achieved, adjust the size of the notched trowel according to the recommendations stated in the notching recommendation chart.

The finished bed thickness should match the requirements mentioned in the technical specifications table.







**POST-APPLICATION PROCEDURES** 



24Hrs

Give the installation at least 24 hours to dry completely before starting the grouting process or using the tiled areas.

all tools with warm soapy water.

While the adhesive is still wet, use a

damp sponge or cloth to remove any

excess adhesive from the tile joints

## NOTCHED TROWEL GUIDELINES

The table offers a general guideline on selecting a notched trowel.

	Laying material	Tile size in mm	Trowel size in mm (H x OW x IW)*		
			As per IS 15477 standard	As per EN 12004 standard	
	Ceramic tile/ Vitrified tile	300 x 300	6 x 6 x 6	6 x 6 x 12	
		600 x 600	6 x 6 x 6	6 x 6 x 12	

Note: These guidelines assume ideal conditions and practical situations may require adjusting the trowel size.





V-Notched Trowel Square-Notched Trowel

Notched trowel selection for tile adhesive application considers several factors to achieve optimal adhesive coverage with minimum wastage. Tile size and type play a key role, with larger tiles requiring deeper notches for proper support and smaller tiles benefiting from shallower notches to prevent squeezing excess adhesive through grout lines. Substrate condition is also crucial, as rough or uneven surfaces may necessitate larger notches to account for variations and



ensure sufficient coverage. Conducting test applications on a sample area allows you to determine the most suitable trowel notch size for your specific project, considering additional factors like ambient temperature, humidity and drying time of the adhesive.

#### **SPACING**

 Ensure that there is a minimum grout joint spacing of 1.5 – 3 mm between tiles. Larger joints could be needed for tiles made of stone or quarry. For precise guidelines on the required spacing between tiles, it is crucial to consult the tile manufacturer's specifications.

#### **MOVEMENT JOINTS**

• When doing large span tiling work, leave movement joints spaced three meters apart and fill them with a flexible sealant in accordance with **BS 5385**.

#### **RECOMMENDED PRACTICES**

- Use the appropriate tile adhesive for your project, based on the type of tile and substrate to be bonded.
   ASCOLITE offers a range of adhesives tailored for various applications.
- It is imperative to clean the back of the tile and ensure it is clear of any dust, filth, debris and/or releasing agent before beginning the installation. If normal dusting and water cleaning are ineffective, ASCOCLEAN BTC can be used to clean the back side of the tile.
- Use ASCORENDER and FIXOBOND AD to level substrates with high undulation.
- Continuously monitor the level and alignment of each tile as it is laid, making necessary adjustments to maintain linear alignment and even surfaces.
- For medium to large tile sizes, back-butter the tiles by applying adhesive to the back of each tile before setting



it in place. This will ensure a strong bond between the tiles and the substrate.

- Use a slow speed mechanical mixer when mixing the adhesive.
- Ensure that all wall substrates are rigid, as excessive movement can cause the tile and grout to crack or loosen.
- To accommodate for any floor slope, begin laying the tiles from the top and modify the size of the bottom layer as necessary.
- To make sure the colour, pattern, and shade of the tiles are as desired, spread them throughout the area before the installation.
- When applying in extreme conditions, please follow the technical guidelines or contact our technical team.
- After installation, shield the tiled surface from direct sunlight and rainfall for at least 24 hours.
- Regularly check for lippage, a condition where the edges of adjacent tiles are misaligned. Promptly correct any lippage to maintain a level surface.

#### **PRACTICES TO AVOID**

- Do not accept any weak, unsuitable adhesive or material on site without proper inspection.
- Do not apply tiles over weak, unstable or flexible surfaces, as this can lead to debonding.
- Do not use with PVC heating mats or coils, polyethylene membranes, or other such membranes.
- Do not use over anti-fracture and waterproofing APP/Bituminous membranes, sheets, ply or mats.
- Do not apply directly on AAC blocks.
- Do not further add water to the adhesive after the initial mixing process.
- Do not add any extra sand, cement or contaminated water to the adhesive mix.





- Do not use a metal hammer to tap or fix the tiles, as this • can lead to tile cracking.
- Avoid using tiles with broken edges. •
- Avoid leaving too much grout on the tile's surface. Make use of a damp sponge to remove any extra grout.
- After installation, prevent placing any heavy object or • equipment on the tiled surface till the adhesive is completely set.
- Always mix adhesive according to the manufacturer's instructions. An incorrect ratio of water can have an impact on the adhesive's performance.
- Never use adhesive on a surface that is too wet.

# PACKAGING

20, 25 & 50 kg

### SHELF LIFE

FIXOBOND ADHESIVE RANGE, when unopened, can be stored above floor level in a cool dry place for a duration of up to 12 months.

	1
(1)	
	i

50 Kg

25 Kg

# COVERAGE

- 1.3 1.5 kg/m<sup>2</sup>/mm (by weight)\*
- 7 8 ft<sup>2</sup>/kg/mm (by application area)\*

\*Subject to tile & substrate evenness.

# **HEALTH & SAFETY GUIDELINES**

• Take preventive measures to keep children away from this product.



- Wear appropriate safety gear at all times, • such as gloves and face or eye protection.
- If the adhesive comes in contact with your eyes or skin, • immediately rinse them well with lots of clean water and seek medical advice.

Only qualified professional applicators or contractors may use this product.

# **TOOLS & ACCESSORIES**

#### **TILING TOOLS**



#### **TILING ACCESSORIES**





TILE WEDGE WITH CLIP

SPONGE

#### **GROUTING TOOLS**





GROUT SPREADER

PUTTY KNIFF





#### DISCLAIMER:

This technical data sheet supersedes all previous versions from the immediate effect. The company guarantees its products against any manufacturing defects. The user should determine the product's usability for its intended use. Since the company has no control over site conditions and the installation procedures, the company would not be responsible under any circumstances for any loss, damage or liability from incorrect usage. For the products on which the company is offering a warranty, please refer to the warranty document to know the entire terms and conditions. The same can be availed on request or from the company website. All orders are accepted subject to our prevailing terms of sales and delivery. While the technical details & recommendations contained in this document and the related details given by the representatives of the company maintains an active research and development policy, allowing us to continuously enhance our products. As a result, we reserve the right to revise this information at any time without prior notice. For optimal results, we recommend this product be installed by a qualified professional. By using this product, users acknowledge and agree to the terms and conditions outlined in this disclaimer.