

TECHNICAL DATA SHEET

SMARTBOND FLEX DIAMOND

C2TS2 Flexible Tile Adhesive

PRODUCT DESCRIPTION:

SMARTBOND FLEX DIAMOND FLEXIBLE TILE ADHESIVE C2TS2 conforms to PNS ISO 13007-1:2014 type C2TS2 with Heavy-duty adhesion, Slip-Resistance, and High Flexibility for permanently bonding large-format tiles, such as ceramics, porcelain, marble, granite, and natural stones for indoor and outdoor, floors, and walls application. It is a lightweight, flexible tile adhesive especially formulated using flexible polymers, lightweight filler, and special additives to provide easy mixing, excellent workability, low dust, and no slump or shrinkage while maintaining optimum strength and flexibility.

It has flexible characteristics that can absorb different stresses, such as concrete shrinkage and thermal expansion. It has a slip-resistant capability which prevents the tile from slipping when installed on the vertical surfaces of walls.

It is carefully developed to give an extended open time/pot life, ideal for longer working time requirements. Its low dust emissions bring health and safety advantages. Its unique water retention technology is the key to preventing tile debonding.

Tile Adhesive Classification According to the Philippine National Standard following ISO 13007-1:2014

C = Adhesion	S = Flexibility	T = Slip Resistant
C1 = Bonding strength 0.5 N/mm ²	S1 = deformability ≥ 2.5 mm but < 5mm	Slip resistance vertical application
C2 = Bonding strength 1.0 N/mm ²	S2 = deformability ≥ 5.0 mm	

CUSTOMER BENEFITS:

- Endures structural movement
- Prevents tile de-bonding
- Reduces cost of transport
- Follows European and Philippine standard
- Environmentally friendly

SMARTBOND RECOMMENDATION TABLE			
APPLICATION	C1TS1	C2TS1	C2TS2
SIZE OF TILES	30x30cm & below the size of tiles	60x60cm & below the size of tiles	60x90cm & above the size of tiles
TYPE OF TILES	Ceramic & earthenware	Porcelain, mosaic, marble, granite, and most types of tiles	Porcelain, marble, granite, and most types of tiles
FLOOR ELEVATION	All floor-level application	All floor-level application	All floor-level application
AREA OF APPLICATION	Indoor and outdoor	Indoor and outdoor	Indoor and outdoor
	Floor and wall application	Floor and wall application	Floor and wall application

INSTRUCTION FOR USE

PREPARATION

All substrates must be clean, dry, and strong enough to support the weight of the tiles and adhesive. Remove all dust, dirt, oil, grease, paints, and other contaminants that may affect adhesion. New render/screed surfaces must be allowed to cure for at least 7 days while new concrete must have cured for 6 weeks.

MIXING

Pour 6.8-7.2 liters of water into a clean container. Slowly add .015cbm of tile adhesive and mix with a slow-speed mechanical mixer until a homogenous and lump-free paste is obtained. Allow the mix to stand for 3 minutes and re-stir before use.

APPLICATION

The tile adhesive is spread on the substrate to a uniform thickness. The correct notched trowel size to use will depend on the type and size of the tiles.

Lay the tiles onto the adhesive and ensure that a firm pressure is applied to achieve good contact with the adhesive.

For large format sizes of tiles (60cm x 90cm and up) back-buttering is recommended according to ANSI and TCNA guidelines to increase the bond strength of tile adhesive.

Only apply to areas that can be tiled in the adhesive's open wet time.

Careful checks have to be made to ensure that skinning does not occur on the surface of the adhesive before laying the tiles. If skinning has occurred, rework the adhesive before laying the tiles.

The adhesive will remain workable for 90 minutes, has an open time of 20-30 minutes, and can be grouted after 24 hours after laying the tiles.

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CLEANING

Remove excess adhesive with a damp cloth before the material has set. After setting, cleaning becomes very difficult but can usually be helped by mechanical means. Once the tiling is complete, do not disturb for at least 4 hours. Wait 24 hours after grouting before opening the area to dry service and 7 days for wet service.

Note: *Setting time, open time, and pot life of the adhesive are affected by temperature. In cold weather, setting time will be slower, and in warm weather setting time will be faster. Do not apply in temperatures above 35 °C.*

COVERAGE

0.015cbm bag of **SMARTBOND FLEX DIAMOND W FLEXIBLE TILE ADHESIVE** mixed with 6.8-7.2 liters of water will cover 5 sqm at 3 mm thickness.

PACKAGING

SMARTBOND FLEX DIAMOND FLEXIBLE W TILE ADHESIVE is supplied in a 0.015cbm bag.

STORAGE

SMARTBOND FLEX DIAMOND FLEXIBLE W TILE ADHESIVE has a shelf life of 12 months if maintained in dry storage conditions in unopened bags.

HEALTH & SAFETY

Gloves should be worn during application. Care should be taken to avoid inhalation of dust and contact with eyes. Refer to the Safety Data Sheet (SDS) for complete safety information on handling the product.

WARRANTY AND DISCLAIMERS

The information provided in this technical data sheet is based on our best knowledge and testing methods at the time of publication. While we believe the information is accurate and reliable, it is presented without any express or implied guarantee, warranty, or responsibility. Any use of the product outside of specifications or improper storage or installation voids any warranty. Users are encouraged to conduct their testing to assess product suitability. Always consult the product's safety data sheet (SDS) for safety guidelines and follow recommended precautions. We reserve the right to update this data sheet without notice, users should ensure they have the latest information.

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