

Technical Data Sheet

Re.: C&L-CG-18-010323-02

<p>In Compliance With In compliance with European Norms – EN - RG (Reactive Grout)</p>	<p>Walnut Connect & Lock transparent CRYSTAL Grout is consisting of high-quality glass crystal, eco-friendly resin & hardener. The grout provides excellent high-quality transparent joint between multicolor ceramic & glass mosaic, low thickness slab & other designer tiles & stone. The joints provide monolithic color surface across the surface of mosaic tiles & stone. Crystal grout also resistance to chemical, stain & abrasion and does not allow water to go through. Crystal grout also can be used as adhesive upto 3 mm. thick for fixing ceramic & glass mosaic and as grout to fill the joints upto 10 mm. For interior use only.</p>
<p>Main application Transparent epoxy grout for fixing and joint filling of multi-colour ceramic & glass mosaic. Also, joint filling for low thickness slab & other tiles & stone.</p>	

Technical advantage of Connect & Lock Crystal Grout

- Crystal clear technology to pass maximum colour & light.
- High quality glass crystal provides smooth & glossy surface.
- Monolithic colour surface across multicolor tiles or stone joints.
- No stain on grout joints.
- High chemical & stain resistant.
- Hygiene, antibacterial & does not allow fungal growth by itself.
- Almost waterproof by its nature.
- Very high compressive strength.
- Smooth and shiny flush joints between ceramic tiles and glass mosaics.
- Easy to mix, apply and water cleanable at site.
- Durable and long-lasting.
- Sag resistant in nature and does not sag from the joint up to 10 mm.
- Low VOC and at par with international norms.
- Best to use as an adhesive & grout for ceramic & glass mosaic.
- Post application no acid or special cleaner requires to clean the grout surface.

Suitable areas

- Restaurants, Discotheque, Bar, Jewelry & Fashion showrooms.
- Areas where joint must shine using Walnut Jewels.
- Commercial and industrial floors.
- Grouting of small & narrow joints in tile & stone.
- All kind of small & public swimming pools including saunas & spas.
- Public restaurants & cafeterias.
- Pubs & Bars
- Residential & Commercial use.

Suitable materials for grouting

- All type & size of ceramic & glass mosaics tiles.
- All type & size of natural and engineered stones with narrow joints.
- Large format tiles of all type including low thickness slabs with narrow joints.

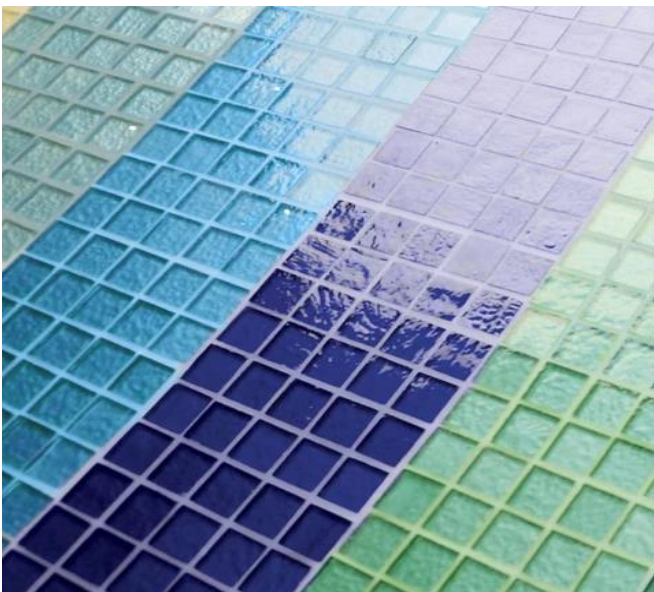
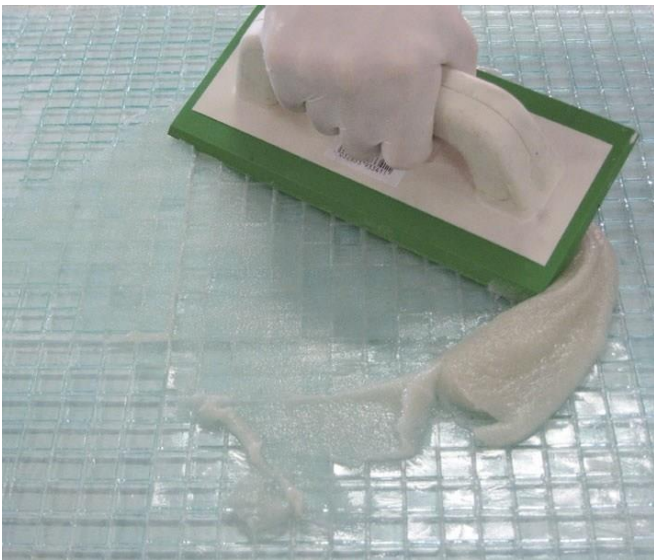
Suitable materials to use as an adhesive

- Ceramic, Glass & metal mosaics.

Product not to be used

- On rubber surfaces.
- Tiles or stone surfaces which are highly absorbent and may allow the resin to penetrate. (Test small area first).
- In expansion and connection joints. Also joints which are subjected to extreme movements.
- Not to be used as substitute for sealants.
- In external area.
- In Joints with standing water and continuous rising moisture.

How to Use



Single Mono Pack

Important tools for application:

- Electric low speed mixing stirrer.
- Vacuum cleaner, brush, broom or blower to remove the dust from joint.
- Walnut rubber grout float.
- Cleaning sponge of good quality & medium density.
- Other mixing & finishing tools such as mixing trowel, water bucket, measuring tape, jar etc.

Cleaning of tools:

While still the material is fresh, all the tools can be cleaned with normal water or soap / detergent.

Surface Preparation:

- First check that tiles or stone are fixed properly and are not sounding hollow. In case sounding hollow, first repair or replace the area.
- Ensure that joints are clean and free from all foreign material such as oil, grease, dust etc. In case dust or cement particles are stuck inside joint, use vacuum cleaner or blower to remove the same. Grout remover tool also can be used in case old grout to be removed.
- In case working in external area under sun, avoid applying grout on hot surface and in joint. First, let cool the surface of tiles or stone and don't work under direct sun. Hot surface may compromise final performance of grout.
- In case surface of tiles or stone are absorbent, then before starting the application, first apply the grout in small test patch area. In case dis-coloration of surface, consult Walnut technical representative and stop the application.
- In case tiles or stone are rustic in nature and having un-even surfaces, it is possible that grout residue may remain on the surface and difficult to fully clean. In this case, better not to apply grout on entire surface area. Also, if needed, edges of tiles or stone can be masked by applying suitable masking tape and can be removed post cleaning of grouts.

Mixing: (Part A - Hardener: Part B -Resin Paste)

- Open Connect & Lock Crystal mono pack. Mix full quantity of part A hardener into Part B thick paste. Use slow speed electric stirrer until it become homogeneous paste. Manual mixing can compromise performance of grout.
- In case part quantity of grout to be mixed, it is advisable to use strictly the correct ratio of Part A: Part B (1:15). For taking correct ratio, a measurement jar can be used. (In case Part A & B mixing ratio are not correct, the final result may vary and grout performance can be compromised.)
- Use the mixed material within pot life period.

How to apply as grout & cleaning:

- Before applying the grout on overall surface of tiles or stone, test the small area for any discoloration due to absorbency in tiles or stone surface.
- In case tiles or stone surface is rough or un-even, it is advisable to apply the grout only in the joints and not on the entire surface of tiles or stone to avoid cleaning issue. (A good masking tape also can be used if needed on the edges.)
- Spread the grout evenly on the surface of tiles or stone to cover the area.
- Once grout is spread, fill the joint completely using rubber grout float. Keep the rubber float diagonally to the joint and apply 45-degree angle to have perfect filling.
- Once all the joints are filled properly, remove excess grout if any from the surface of tiles or stone.
- To achieve flush joint, leave the grout approx. 15 to 30 minutes (Depends on temperature) in the joints. (Immediate cleaning of grout is possible, but it may lead to un-even grout surface finish).
- Start cleaning the grout with clean water and medium density sponge in circular motion all over the joints. Finish the joint smoothly and evenly. (Change the water twice or more to have proper cleaning of surface.) The sponge cleaning will ensure the grout leaves a smooth and glossy finish at the joints.
- There may be a white haze appeared on the grout joints at the time of application. This is not discoloration and the haze will disappear shortly after cleaning.
- Leave the grout for 24 hrs. to dry and fully set. Protect the area for any possible stain on fresh grout due to movement.
- After 24 hrs. the tile surface can be cleaned with soap water to remove any haze remained at the top.

How to apply as an adhesive:

- After the mixing use a 3 mm notched trowel and apply only to the recommended surfaces. Fix the tile immediately or before 10 minutes after application.
- A scratch coat/ bond coat on back of the tile recommended for better adhesion.
- Grouting can be done after 8-24 hrs. Of adhesive application.

Product & Working Data

- Product appearance : Part A Liquid hardener in bottle. | Part B translucent paste.
- Packing : 4 kg single Mono Pack
(Part A paste 3.75 Kg. | Part B hardener 250 Gram.)
- Mixing ratio : 1:15 - hardener: resin
- Shelf life : 24 months from the date of manufacturing.
- Pot life : 35 Minute Approx.
- Using alongwith C&L Jewels : 1% by weight of crystal grout or more can be mixed.
- Cleaning time : 15 to 30 minutes.
- Maximum width of joint : up to 10 mm.
- Grouting when fixed with adhesive : After 24 hours
- Grouting when fixed with wet mortar : After 14 days
- Foot traffic and lite uses : After 24 hours
- Full strength of grout : At 7 days.
- Coverage : consumption is based on joint width & depth. Refer the coverage chart.
- Application temperature : + 5* C. to + 35 * C.

(Data @ 23* C. & 50% humidity)

Technical Performances

In compliance with European Norms: EN RG (Reactive grouts)

Compressive strength	: 54 MPa	: As per EN 13888
Abrasion resistance	: 162 mm ³	: as per EN 12808-2
Water absorption after 240 min.	: 0.03g	: EN 12808-5
Resistance to fungal contamination	: High	
Resistance to bacterial contamination	: High	
Porcelain tiles/concrete tensile strength ≥	: 3 MPa	: EN 1348
Working temperature	: from -40° C to +110° C	

(Final results @ 28 days. 23° C. & 50% humidity)

- Final resistance to temperature after 7 days or full cure: - 30 to + 80 ° C.
- The final results may vary based on temperature and humidity.

Coverage Chart

Coverage's of Connect & Lock Crystal Grout - Approx. sft. area covered in 3 kg. of grout.								
Tile size in mm. (W x L x T)	Joint width in mm							
	1	2	3	4	5	6	8	10
20 x 20 x 3 (Glass Mosaic)	72	36						
50*50*3 (glass mosaics)	180	90						
100*100*3	363	181	121	90	72	60	45	36
100*150*3	438	219	146	109	87	73	54	43
200*300*4	657	328	219	164	131	109	82	65
300*300*5	657	328	219	164	131	109	82	65
300*450*6	657	328	219	164	131	109	82	65
450*450*8	615	307	205	153	123	102	76	61
600*450*8	702	351	234	175	140	117	87	70
600*600*8	819	409	273	204	163	136	102	82
900*900*11	894	447	298	223	178	149	111	89
1200*1200*9	1458	729	486	364	291	243	182	145
1200*2400*9	1947	973	649	486	389	324	243	194

Important instructions & precaution

- In case of very weak or old joints, please ensure that proper strength or correction are done before use of grouts.
- If temperature is more than 35° C., than avoid using the products under direct sun.
- In case temperature is cold and below 5° C., the initial and final setting may affect.
- In case the performance of Walnut products are not as per technical data mentioned, please call Walnut technical helpline or its nearest representative.
- If applied externally, it is possible that over the time period grout colour may change due to UV rays. Consult Walnut technical helpline or its nearest representative.

Walnut Green Building Index

Walnut range of products are most eco-friendly and suitable to use in all kind of buildings including certified green. Apart from using best of international raw material for best performance, Walnut procure the major raw material locally to safeguard environment.



- Recycled Raw Material used.
- VOC (Very low Organic Compounds).
- Suitable for all kind of green and normal buildings.

Walnut Quality & Safety Assurance

Products supplied are safe to use by any worker at site. However proper tools and safety measures must be in place for prolong working. The gloves, safety glasses and other protection measure must be followed as per local regulation.



Declaration

All the above information and results are provided based on Walnut internal quality test. Customer must check before using the product about performance and final expected results. Walnut cannot be held responsible for any damage of whatsoever nature at site.

Technical Help

Walnut Building Solutions India Private Limited | CIN: U36999MH2017PTC289638

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