

Light up your night weber night vision epoxy grout Weber knight armor

**PATENT
PENDING**



ILLUMINATES
IN THE DARK



2 COMPONENTS



EASY TO APPLY
AND CLEAN



HIGH BOND
STRENGTH



CRACK
RESISTANT



CHEMICAL
RESISTANT



WATER
RESISTANT



UV RESISTANT



STAIN
RESISTANT



TRAFFIC
RESISTANT

Product Description

Weber knight armor is a 2 component, high performance 100% solid epoxy based tile/stone joint filler which provides photo luminescence during dark. It can absorb natural or house hold light & provide luminescence in darkness when placed between tiles or stones. Apart from a transparent hybrid resin & additive, it has a pigment coated on the reflective, spherical filler which allows light to enter deep inside the material & excite the particles to provide luminance of highly aesthetic & decorative joints in the absence of light. The luminance from joints is consistent based on the intensity & exposure time made available to the joints. Weber knight armor is based on reaction resin formulations resulting in water tight & durable joints & the luminance is protected against household & commercial cleaners used daily for cleaning tiles & stones. The formulation of Weber knight armor is made in such a way that it remains neutral and absorbs light energy during the day and becomes visible during the dark to provide sufficient light enabling it to be used for directions during pedestrian movements without utilizing any additional energy source. It is thixotropic in nature with non-sag formula which can be applied on horizontal & vertical, interior & exterior, dry, wet & submerged conditions in residential & commercial applications. It can used with ceramic tiles, porcelain tiles, vitrified tiles, glass mosaic tiles, 3D glass tiles, back splash glass tiles, natural & artificial stones & all types of marbles & granites.

Features & Benefits

- It can be used as green building products since it utilizes the natural energy to provide luminance in dark for pedestrian movement with a high aesthetic appeal.
- Non-sag formula for wall & floor applications.
- High bonding strength with tiles and stones.
- Joints with weber knight armor are resistant to most of the commercial tile & stone cleaners.
- Non absorbent i.e. water resistant joints prevent growth of fungus and bacteria.
- Two components, ready to mix, ensures consistent quality of grouts.
- Very low shrinkage and high resistance to cracks.

- Easy to mix, creamy consistency, faster in application and ease in cleaning to get smooth & decorative finish.
- Excellent chemical & stain resistance properties.
- High mechanical strength allows usage in high foot traffic areas, open parking & vehicle movement.
- It can be applied in between the tile & stone under submerged condition due to its water resistance properties.
- It can also be used as adhesive for fixing transparent glass tiles & blocks.
- Minimum exposure of light intensity at joints required from 300-1000 lux to get visible luminance for more than 5-8 hours and luminance been tested as per international standard.
- High translucence with coated pigment increases the chromatic effect resulting into highly aesthetic and decorative finish.

Area of application

- For joint filling in between tiles and stone where high aesthetic & decorative finish is desired.
- Grouting with weber knight armor in areas of
 - Residential
 - Commercial
 - Office lobbies
 - Hospitals
 - Airports
 - Pathways
 - Fire exits
 - Swimming pools
 - Disco theque
- For places which require grouting & illumination in dark.
- For wood works as a grouting.

Conformity to standards

- Resistance to abrasion as per ISO 13007-4
- Compressive strength as per ISO 13007-4
- Shrinkage as per ISO 13007-4
- Luminance as per DIN 67510
- Water absorption as per ISO 13007-4
- Water clean ability as par ANSI 118.3

- Very low absorption exceeding ANSI 118.3
- Food Regulation test as per CFR 175-300 US –FDA

Usage

- For grouting of varied designer tiles on wall and floor in internal and external areas.
- In dark it works to identify pathways for pedestrian and floors for swimmers.
- It can be used to display name plates when carved in stone & tile and filled with weber knight armor.
- Children & adults can use it to identify floor.
- For residential, commercial & corporate it can be used externally for display of brand & logo.
- Design pattern can be highlighted to glow in dark.

Limitations

- Minimum joint width of 1mm.
- Maximum joint width of 7mm in vertical and 14 mm in horizontal.
- Not to be used in industrial aggressive chemical prone areas and the areas which are subjected to aggressive cleaning with pressure or steam cleaning.
- Atleast 7 days after grouting for acid cleaning & submerged conditions.
- The luminance performance would be affected if the joints are not exposed to daylight or house hold light.
- The joints look white during day time irrespective of the colour of the tile.

Cautions

- Ensure compatibility of the tiles/stones with weber knight armor.
- Refer to the methodology of application section and the literature of the tile/stone manufacturer taking suitable precaution, it is always advisable to test a small sample area before grouting the entire area.
- No water addition to be done in the mix as it will adversely affect the performance.
- Grout needs to be protected from chemical, acid and staining agents during curing process and can be tested after 7-10 days of applications.

- weber knight armor is not a replacement of water proofing membrane, consult weber personnel for weber water proofing products.
- Do not inhale or intake, keep out of reach of children.
- Use personal protective equipment like gloves and eyeglass while mixing and application of grouts.
- Always ensure the joints are fully packed, especially in case of irregular and tight joints.
- Grouting needs to be protected for minimum 7 days from rain after application.
- In case of high porous tile and stone use weber sealer to protect the stone prior to grouting.

Method of application

Surface preparation

- The tiles/stones should be firmly set & the adhesive or mortar is completely dry.
- In wet stage adhesive/mortar to be removed from the joints to avoid contamination during grouting.
- Grout joints must be clean and free of standing water, solvent, dirt, dust & foreign matter.
- The spacers should be removed before grouting.
- The tiles/stones should not be cleaned with acid cleaners and all joints should be cleaned by washing with water/detergent.

Mixing

- Use personal protective equipment before mixing.
- Add hardener component B into the component A container and mix the content for 3-5 minutes with slow speed mixer ensuring proper mixing of the component. Do not prolong the mixing time to avoid air entrapment resulting in reduction of pot life.
- In case of small quantity use approx 7 : 1 ratio by volume of component A (resin) to component B (hardener) and mix thoroughly for 5 minutes with trowel or appropriate tool.
- Mixed workable grout to be used within 45 minutes at 27°C.
- Tools need to be cleaned immediately with water after the application, hardened material will be difficult to remove.
- No water to be added to the mix.

Product Application

- Spread the grout on surface with rubber grout float or appropriate tool. It need to be filled diagonally across the joints, ensuring packing is full to avoid any free air voids.
- Excess grout to be removed from the tile surface by pulling the rubber float or appropriate tool diagonally across the joint by preventing any grout removal.

Cleaning & Finishing

- Cleaning to be done 15-20 mins after grouting. Incase of any individual doing the application only grout as much area as can be cleaned in next 15 to 20 mins. In case of team doing application one person should do grouting and other person follow by cleaning.
- Always use fresh and clean water for cleaning and finishing.
- Rinse the scrubber with water and squeeze to completely dry, move the scrubber flat, lightly on the tile surface in circular motion for cleaning and to prevent grout removal from the joints.
- Do not use excessive water while cleaning as it will delay the curing time as well can create haziness on the joints, excess water if any to be removed immediately.
- Water to be changed at regular interval or when found water gets dirty.
- Check for any incompletely filled joints during cleaning and if found fill it up immediately
- Allow cleaned area to dry and use dry clean cloth for final cleaning of the grouts.
- No traces of epoxy to be left on the tile, once hardened it's difficult to remove the material from the surface.
- On smooth surface like glass mosaic and glass tile weber knight armor can be cleaned with well squeezed clean cloth.

Precautions during curing

- The grouted area need to be protected from dust and light foot traffic for minimum 24 hours.
- Heavy foot traffic to be allowed only after 72 hours

of grouting.

- Grouted area of swimming pool, wet, shower, fountain and steam shower area need to be protected for minimum 7 days from moisture.

Maintenance

- Weber knight armor require normal water cleaning. Diluted commercial cleaners can also be used if required.
- For best stain resistance clean the spills immediately.

Conformations to standards:

ISO 13007-4, ANSI 118.3, EN 12003 and CFR175-300 US-FDA

Test Parameters	Applicable Standard	Results
Abrasion resistance @7days	ISO 13007-4	< 220 mm ³
Flexural strength @7days	ISO 13007-4	> 35 Mpa
Compressive strength @7days	ISO 13007-4	>50 Mpa
Shrinkage	ISO 13007-4	<0.35 mm/m
Water absorption after 240 min	ISO 13007-4	<0.07 gm
Water clean ability	ANSI 118.3	> 85 minutes
Initial setting time	ANSI 118.3	Maximum 210 min
Service setting time	ANSI 118.3	< 7 days
Linear shrinkage	ANSI 118.3	< 0.1%
Sag in vertical joints	ANSI 118.3	No sag in vertical joints
Tensile Strength	ANSI 118.3	>8 Mpa
Thermal Shock	ANSI 118.3	>7 Mpa
Food Regulation Test	21 CFR175-300 US-FDA	Passes

Chemical Resistant Chart

S.No	Chemicals	>30Mins Contact	>24 hours Contact
1	Sulfuric Acid 50%	☐	☐
2	Nitric Acid 25%	☐	☐
3	Nitric Acid 50%	◐	◐
4	Nitric Acid 100%	◐	▲
5	Benzoic Acid 5%	☐	☐
6	Phosphoric Acid 80%	◐	▲
7	Acetic Acid 2.5%	☐	☐
8	Acetic Acid 5%	☐	☐
9	Acetic Acid 10%	☐	☐
10	Acetic Acid 100%	◐	▲
11	Oleic Acid	◐	◐
12	Oxalic Acid 10%	☐	☐
13	Tartaric Acid 50%	☐	☐
14	Alcohol	☐	☐
15	Lactic Acid 5%	◐	▲
16	Toluene	◐	◐
17	Methylene Di chloride	◐	◐
18	Chloroform	☐	☐
19	Sodium Hydroxide 50%	☐	☐
20	Tanic Acid 50%	☐	☐
21	KMnO ₄ 1%	☐	◐
22	KMnO ₄ 10%	◐	▲
23	Turmeric	☐	☐
24	Wine	☐	☐
25	Oil	☐	☐
26	Acetone	☐	☐
27	Xylene	☐	☐
28	Tomato ketchup	☐	☐
29	Coffee	☐	☐
30	Hair dye	☐	☐
31	Bleach	☐	☐
32	Tea	☐	☐
33	Toilet cleaner (Acidic)	☐	☐
34	Toilet Cleaner (Basic)	☐	☐
35	Toilet Cleaner (Neutral)	☐	☐

☐ = Resistant

◐ = Limited Resistant

▲ = Not Resistant

Coverage Chart

Grout consumption in Kg/m ²									
Size of tile in mm	Joint Width in mm								
	2	3	4	5	6	7	8	9	10
200X300X8	0.21	0.31	0.41	0.51	0.61	0.70	0.80	0.89	0.98
250X400X8	0.16	0.24	0.32	0.40	0.48	0.56	0.63	0.71	0.78
300X300X8	0.17	0.25	0.33	0.41	0.49	0.57	0.65	0.72	0.80
300X300X10	0.21	0.31	0.42	0.52	0.62	0.71	0.81	0.90	1.00
300X300X12	0.25	0.38	0.50	0.62	0.74	0.86	0.97	1.09	1.20
300X450X8	0.14	0.21	0.28	0.35	0.41	0.48	0.54	0.61	0.67
300X450X10	0.18	0.26	0.35	0.43	0.52	0.60	0.68	0.76	0.84
300X450X12	0.21	0.31	0.42	0.52	0.62	0.72	0.82	0.91	1.01
300X600X8	0.13	0.19	0.25	0.31	0.37	0.43	0.49	0.55	0.61
400X400X8	0.13	0.19	0.25	0.31	0.37	0.43	0.49	0.55	0.61
400X400X10	0.16	0.24	0.31	0.39	0.47	0.54	0.62	0.69	0.76
400X400X12	0.19	0.28	0.38	0.47	0.56	0.65	0.74	0.83	0.91
600X600X10	0.11	0.16	0.21	0.26	0.31	0.36	0.42	0.47	0.52
600X600X12	0.13	0.19	0.25	0.31	0.38	0.44	0.50	0.56	0.62

Product details

Component A : Premixed resin with filler

Component B : Light yellow

Mixing ratio : Part A: Part B - 11.5 : 1 by weight

Part A: Part B - 7 : 1 by volume

Consistency : Creamy paste consistency

Mixed density : 1.60 gm/cc

Potlife : 45 minutes @ 27°C

Application temperature range : 10°C to 35°C

Open time for adhesive : 20 minutes

Adjustability time for adhesive : 30 minutes

Setting for light foot traffic : 24 hours

Full Cure : 7 days

Color : Green & Blue

Coverage

Wet Density X joint width X tile thickness X (Length of tile + Breadth of tile)/((Length of Tile + joint width) X (Breadth of tile + joint width)).

Conditions of Sale

Sold subject to the company's conditions of sale which are available on request.

Disclaimer

The user should determine the usability of the product for its intended use. Our products are manufactured under the Saint-Gobain quality standards and subjected to strict quality and control procedures. 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.

Shelf Life : 2 years from the date of manufacturing under sealed condition. To be stored in shed and away from direct sunlight.

Packaging : Available in 1kg and 5kg packs.