W705
Epoxy Color 2K
Epoxy Tile Adhesive & Grout in One

weco® TECHNICAL DATA SHEET | Thin Set & Grout

Ultra Premium ultra-low VOC (volatile organic compounds) acid and stain-resistant two-part epoxy adhesive and grout, for the installation and grouting ceramic, porcelain, marble, natural stones and mosaics, on interior and exterior floors and walls. It is available in a variety of architectural colors and can be used for grout joints up to 5/8" (15 mm) wide, eliminating the need to choose among sanded or unsanded grouts. Part A consists of a mixture of epoxy resin, fine-grain siliceous aggregates, pigments and specific organic additives. Part B consists of an innovative organic catalyst. When mixed together, these form a creamy paste of excellent smoothness, that does not sag on vertical applications. Once cured product forms a tightly packed, non-shrink, color-consistent impervious grout joint with ultra-high mechanical stress performance and enhanced resistance to chemicals, efflorescence, stains and mildew.

USES

- Ideal for bonding and grouting of tiles, mosaics and natural stones in underwater installations (such as showers, swimming pools, spas, jacuzzis, steam rooms, hydro-massage bathtubs, fountains and other submerged areas, properly balanced per pool industry standards).
- For grouting glass or ceramic mosaic joints installed on structures and templates of extruded polystyrene panels used in Turkish baths, hammams and wellness centers.
- For grouting of ceramic tiles, porcelain tiles and thin slabs, including large slabs with or without reinforced back, installed on external facades.
- For grouting of tiles and mosaics on wooden kitchen tops.
- For bonding and grouting tiles, mosaics and natural stones on metal surfaces.
- For grouting tiles, thin reinforced slabs, mosaics, natural stones or resin agglomerates installed on heated floors.

LIMITATIONS

- Install within the recommended temperature range: 64 to 73°F (18 to 23°C).
- Do not use at low temperatures or in environments with high humidity, in order to avoid surface carbonation that could modify the uniformity of the colour.
- Do not use for bonding and grouting light-colored marble, Tuscan terracotta tiles or other porous materials and articles, such as cement kerbs.
- If grouting natural stone, it is necessary to execute a preliminary test, in order to verify the absorption of resin by the stone slabs. Darker stains may form on the surface and sides of the slabs which cannot be removed.
- Do not use for grouting tanks containing aggressive substances, which are allowed only for intermittent contact (see Chemical Resistance Table).

QUALITY STANDARDS

ANSI Member of TCNA

Meets or exceeds classification
EN 13888 RG (Reactive grout for joints) and EN 12004 R2T
(Improved high-performance reactive vertical no-slip adhesive).

TECHNICAL DATA (GROUT)

Test Method	Specification	Result
EN 12003: Initial Shear Adhesion Strength	≥ 2 N/mm2	Pass
EN 12003: After Water Immersion Shear Adhesion Strength	≥ 2 N/mm2	Pass
EN 12003: After Thermal Shock Shear	≥ 2 N/mm2	Pass
EN 1308: Vertical Slip Resistance	≤ 0.5 mm	Pass

TECHNICAL DATA (MORTAR)

Test Method	Specification	Result
EN 12808-3: Mechanical Flexural Strength	≥ 30 N/mm2, 28 days	Pass
EN 12808-3: Mechanical Compressive Strength	≥ 45 N/mm2, 28 days	Pass
EN 12808-4: Shrinkage	≤ 1.5 mm/m	Pass
EN 12808-5: Water Absorption	≤ 0,1 g, 4 hours	Pass

Product Performance Properties at 73°F (23°C) and 50% relative humidity	
Appearance	Thixotropic paste
Specific Gravity	1.55 kg/L
Pot Life	Approximately 1 hour
Installation Time	30 minutes
Open to Light Traffic	24 hours
Final Curing Time	5 days
Shelf Life	1 year

*Product performance properties at 73°F (23°C) and 50% relative humidity.
**Installation time, pot life and time before grouting will vary based on jobsite conditions.

PACKAGING

Product Code	UOM Color
WE0770510	5.5 lbs Pearl White
WE0770511	5.5 lbs Cement Gray
WE0770512	5.5 lbs Graphite
WE0770502	11 lbs Travertine
WE0770503	11 lbs Foggy Gray
WE0770504	11 lbs Warm Gray
WE0770505	11 lbs Graystone

SURFACE PREPARATION

Check that the adhesive or mortar used for bonding the tiles is completely hardened and dry. The joints must be clean and free from dust and any debris. Any traces of adhesive or mortar flowing between joints and spacers must be removed. Make sure that the tiles can be cleaned easily and their surface is not absorbent. Some types of tiles (e.g., polished porcelain tiles) or natural stones feature micro-porosities and surface roughness that can cause surface staining and make cleaning very difficult. In these cases, it is advisable to perform a spot test and, in any case, avoid using product.

CONTROL & EXPANSION JOINTS

Provide for expansion and control joints as specified per TCNA Method EJ171 or TTMAC Specification Guide 09 30 00, Detail 301MJ. Do not cover expansion joints with mortar.

MIXTURE

1. Pour component B (catalyst) onto component A (paste). Make sure to pour all the catalyst contained in the bag.
2. The two parts are pre-batched in exact quantities to obtained the desired product performance: Part A: 93.7 parts by weight / Part B: 6.3 parts by weight. Do not alter this ratio. Do not mix the product with water or solvents.
3. Mix with a power drill mixer to obtain a smooth, lump-free mix. Hand mixing is not recommended.

APPLICATION (GROUT)

1. Working time and hardening time is strongly dependent on the ambient temperature. The optimum application temperature is between 64 to 73°F (18 to 23°C). Under these conditions, the product is soft, easily workable and with a pot life of approximately 1 hour.
2. In hot weather it is advisable to apply the entire product to the surface as quickly as possible so as not to shorten further the pot life due to the reaction heat in the container.
3. Do not add water or solvents to the paste to improve its workability.
4. Apply the paste in the joints using a hard rubber float, such as W-705 Green Hard Rubber Dual Edge Float.
5. Promptly remove any excess product from the surface of the tiles since the product, once hardened, can only be removed mechanically, with serious risks of compromising the final outcome.
6. Begin cleaning with lots of clean water, a felt pad, such as W-705 Scotchbrite Fine White Pad, and a sponge.
7. While cleaning, change the water frequently.
8. Change the felt pad and sponge when they become too impregnated with resin.

APPLICATION (GROUT / ADHESIVE)

1. When used as an adhesive, apply the paste onto the substrate using a notched trowel with suitably sized teeth and lay the tiles exerting strong pressure.
2. In the case of floors subject to heavy traffic or swimming pools, apply the tiles with the backbuttering method, in order not to leave gaps between substrate and tile.

CURING & PROTECTION

Do not walk on the newly grouted surface to avoid staining the floor with epoxy resin. Do not cover the grouted surface with sheets or other materials to prevent condensation from forming that could cause surface carbonation of the product resulting in an uneven colour. Wait at least 24-48 hours, depending on the temperature, before protecting the surface with breathable materials.

CLEANING & MAINTENANCE

The grout work must be cleaned and finished while the product is still wet and, in any case, in the shortest possible time. Take care not to remove product from the joints or leave stains on the tile surface. This operation can be performed either manually or by using a special electric single brush with felt. If not properly diluted and well rinsed, the grouting may turn yellow which is especially noticeable on light colors. Do not use bleach or any other aggressive cleaning product during the first 5 days of grout curing time. If haze or any other residue is left on tiles or mosaic upon this time use W707 Epoxy Clean G to remove it.

SAFETY

Please refer to the Safety Data Sheet (SDS) for safety data. KEEP OUT OF THE REACH OF CHILDREN.

LEGAL DISCLAIMER

Before applying this product, customer must read the product information in this Technical Data Sheet to determine its suitability for the intended application. This product warranty is limited to its replacement or its refund value should it not comply with the specifications of the manufacturer and does not include any application costs. Customer must present original proof of purchase and submit claim in writing within 15 days from the alleged situation. The information in the Technical Data Sheet supersedes any other product information available from packaging and any other company or marketing documentation. Visit our website at www.wecopr.com for the most up-to-date official TDS.

CONSUMPTION AS GROUT (kg/m^2)

Tile Size	Grout Joint Width (1.5 mm)	(2 mm)	(3 mm)	(4 mm)	(5mm)	(7 mm)	(10 mm)
10 x 10 x 4 mm	1.86	2.48					
10 x 10 x 10 mm	4.65	6.20					
15 x 15 x 4 mm	1.24	1.65					
15 x 15 x 10 mm	3.10	4.13					
15 x 30 x 8 mm	1.86	2.50					
20 x 20 x 3 mm	0.70	0.93	1.40	1.86	2.33	3.26	4.65
23 x 23 x 8 mm	1.62	2.16	3.2	4.3	5.39	7.55	10.78
25 x 25 x 10 mm	1.86	2.48	3.7	5	6.20	8.68	12.40
50 x 50 x 4 mm	0.37	0.50	0.7	1	1.24	1.74	2.48
50 x 50 x 10 mm	0.93	1.24	1.9	2.5	3.10	4.35	6.20
100 x 100 x 8 mm	0.37	0.50	0.74	0.99	1.24	1.74	2.48
125 x 240 x 12 mm	0.34	0.45	0.68	0.91	1.13	1.58	2.26
150 x 150 x 6 mm	0.18	0.24	0.36	0.48	0.61	0.85	1.21
150 x 150 x 8 mm	0.25	0.33	0.50	0.66	0.83	1.16	1.65
200 x 200 x 8 mm	0.19	0.25	0.37	0.50	0.62	0.87	1.24

CONSUMPTION AS GROUT (kg/m²)

Tile Size	Grout Joint Width (1.5 mm)	(2 mm)	(3 mm)	(4 mm)	(5mm)	(7 mm)	(10 mm)
250 x 330 x 8 mm	0.13	0.17	0.26	0.35	0.44	0.61	0.87
300 x 300 x 8 mm	0.12	0.17	0.25	0.33	0.41	0.58	0.82
300 x 600 x 10 mm	0.12	0.16	0.23	0.31	0.39	0.54	0.78
400 x 400 x 10 mm	0.12	0.16	0.23	0.31	0.39	0.54	0.78
450 x 450 x 10 mm	0.10	0.14	0.21	0.27	0.34	0.48	0.68
600 x 600 x 10 mm	0.08	0.10	0.15	0.20	0.26	0.36	0.51

CONSUMPTION AS ADHESIVE (5.5 kg / 2.5m²)

Trowel Notch Size (mm)	Coverage (kg/m²)
2	1.1
3.5	1.6
8	3
10	3.5

"Trowel dimensions are joint width x depth, x notch space. Coverage depends on substrate condition, tile or stone selected and notched trowel used.

CHEMICAL RESISTANCE TABLE

Group	Name	Conc. %	CONTINUOUS USE 24 hours	7 days	14 days	28 days	INTERMITTENT USE
Acids	Acetic acid	2.5	●	●	●	●	●
		5	●	●	●	●	●
	Hydrochloric acid	37	●	●*	●*	●*	●
	Citric acid	10	●	●	●	●	●
	Lactic acid	2.5	●	●	●	●	●
		5	●	●	●	●	●
		10	●	●	●	●	●
	Nitric acid	25	●	●	●	●*	●
		50	●	○	○	○	●
	Pure Oleic acid	-	●	●	●	●	●
	Sulphuric acid	1.5	●	●	●	●	●
		50	●	●	●	●	●
		96	○	○	○	○	○
	Tartaric acid	10	●	●	●	●	●
	Ammonia in solution	25	●	●	●	●	●
	Caustic soda	50	●	●	●	●	●
Alkalis	Sodium hypochlorite in solution Conc. Active Cl	>10	●	●	●	●	●
	Potassium hydroxide	50	●	●	●	●	●
Solutions Saturated at 20°C	Calcium Chloride		●	●	●	●	●
	Sodium Chloride		●	●	●	●	●
	Sugar		●	●	●	●	●

KEY ● RESISTANT ●* RESISTANT WITH POSSIBLE COLOUR VARIATION ○ NON-RESISTANT

CHEMICAL RESISTANCE TABLE

Group	Name	Conc. %	CONTINUOUS USE 24 hours	7 days	14 days	28 days	INTERMITTENT USE
Oils and fuels	Lead-free gasoline		●	●	●	●	●
	Diesel		●	●	●	●*	●
	Extra Virgin Olive Oil		●	●	●	●	●
	Lubricant oil		●	●	●	●	●
Enzymatic Cleaners	Cleaner 1 at 4%		●	●	●	●*	●
	Cleaner 2 at 5%		●	●	●	●	●
	Acetone		●	●	●	○	●
Solvents	Ethylene glycol		●	●	●	●	●
	Ethyl alcohol		●*	●*	●*	●*	●*
	Hydrogen peroxide	10 vol	●	●	●	●	●
		25 vol	●	●	●	●	●

KEY ● RESISTANT ●* RESISTANT WITH POSSIBLE COLOUR VARIATION ○ NON-RESISTANT