

TechnoFix[®] ResiCon PG

Ultra-High Performance styrene-free polyester resin
Grout for anchoring and fixing into a variety of substrates.

Description:

TechnoFix[®] ResiCon PG is an ultra-high Performance two component solvent free Epoxy resin cartridge system supplied in 3:1 ratio side-by-side cartridges with a static mixer nozzle. TechnoFix[®] ResiCon PG is designed ready to use at site, to produce a high performance, strong fixing with exceptionally high chemical resistance characteristics for permanent fixing and installation of steel reinforcement bars and threaded rods into concrete substrates and structural applications.

It is essential for deep embedment and large diameter holes due to its longer working time and zero shrinkage. For use with both carbide & diamond drilled holes, and in areas of high chemical exposure.

Application Includes:

TechnoFix[®] ResiCon PG can be used for following application-

- Use in indoor and outdoor environments.
- Fixing of building substructures.
- Bonding and surface crack sealing applications.
- Steel dowels, staircases, hand rails, facade, sound barriers, pipelines, awnings, brackets, post-installation rebar connections.
- Fixing machines, steel constructions, wooden constructions, reinforcement bars, especially suitable for big diameter rebars/rods.
- For heavy loading, threaded rod anchoring, rebar doweling into concrete and masonry.
- Suitable for wall, vertical, and overhead applications.

Features:

- Exceptional high ultimate and early and compressive strength development.
- Resistant to dynamic loading.
- Exceptional bond to concrete and steel surfaces, No additional mixing equipment required.
- Resistant to a variety of chemicals, Low VOC, Long gel/working time.
- Waterproof, protecting the fixing from corrosion.
- Non-sag ideal for overhead application.
- Excellent performance in hammer and diamond core drilled holes.
- Enables fixings closer to edges than mechanical anchors

TechnoFix[®] ResiConE Gel & *Dry Curing Times

Substrate Temp.	+5°C	+10°C	+20°C	+30°C	+40°C
Gel time(mins)	120	90	50	35	20
Dry time(hrs)	72	48	24	12	6

*The table is for dry conditions. In wet/damp conditions, the curing time will double. Be aware that the substrate temperature can vary significantly from the ambient temperature.

Properties & Performance Indexes

Appearance when mixed	Grey or Red
Flexural Strength (EN ISO 178 / ASTM 790)	15.90 N/mm ²
Compressive Strength (EN ISO 604 / ASTM 695)	43.50 N/mm ²
Flexural modulus (EN ISO 178 / ASTM 790)	2,803.00 N/mm ²
Tensile strength (EN ISO 527 / ASTM 638)	9.30 N/mm ²
E modulus (EN ISO 527 / ASTM 638)	4,874.50 N/mm ²
Mixture ratio (weight ratio)	3:1

Typical Performance at Standard Embedment Depth in Solid Substrate

Size	Characteristic Resistance (kN)*		Recommended Load (kN)*		Spacing (mm)	Hole Diameter Drill (mm)	Embedment Depth (mm)
	Tension (Nrk)	Shear (Vrk)	Tension (Nrec)	Shear (Vrec)			
M8	19.0	9.0	9.1	5.1	160	10	80
M10	26.3	15.0	8.7	8.6	200	12	90
M12	36.3	21.0	12.0	12.0	240	14	110
M16	52.2	39.0	17.3	22.3	320	18	125
M20	82.4	61.0	27.2	34.9	400	24	170
M24	102.9	88.0	34.0	50.3	480	28	210

*All tests were performed using grade 5.8 grade studding and C20/25 dry concrete with temperature range maximum long term / short term temperature +24/40°C. All data is based on correct installation – see instructions.

Typical Performance at Standard Embedment Depth in Hollow Wall

Size	Recommended Load (kN)	Spacing (mm)	Hole Diameter Drill (mm)	Hole Diameter Drill (mm)
	Tension (Nrk)	(mm)	(mm)	(mm)
M6	3	80	12	9
M8	6	160	16	11
M10	6	160	16	13
M12	8	240	20	17

*Values based on 20.5 N/mm² strength blockwork

Limitations

Load calculations should always be undertaken by a qualified engineer. For designing under conditions where seismic forces or fire is a consideration, please consult the relevant certification to make suitable adjustments for loading. TechnoFix® ResiCon PG may stain natural or decorative stone, please check suitability before using for such applications.

Health and Safety instructions

If eye or skin contact, get immediate medical attention. Wash hands thoroughly after handling. Wear protective clothing, gloves, eye and face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Dispose of unused, contents, container and other contaminated wastes in accordance with local, state, federal and provincial regulations. Keep container closed when not in use.

Cleanup Information

Clean tools and equipment with industrial type solvents immediately after use. Dried material can only be removed mechanically.

DISCLAIMER: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

EDITION: 12/2018/001
IDENTIFICATION NO: PD-328/PG

Please note that this datasheet supersedes all previous versions.

Product Installation

The following methodology is for installation into solid substrates such as reinforced concrete. For other substrates or fixings please request a separate method statement.

1- Mark up Hole Position and Drill Hole

Drill holes in designed position. The depth and diameter of the hole should meet the requirements in order to meet bonding area and ensure the pulling strength. If rebar is struck immediately stop drilling and seek the advice of the designing engineer.

2- Clean Hole

Clean holes immediately prior to installation of fixings to avoid them becoming re-contaminated. Brush and blow for three times at least is recommended.

3- Glue Preparation

TechnoFix® ResiCon PG is equipped with a special static mixer and dispenser. Squeeze out the glue without fully mixed in the front part of the cartridge.

4- Injection

Inject the glue from the bottom of the hole until fill the two-third of the hole.

5- Rust Removal of Steel Rebar

Remove the rust if any form the steel bar or anchor bolt before inserted through the hole.

6- Anchoring

Inserting in one single direction until to the bottom of the hole.

7- Standing and Curing

Keep stand for maintenance before curing.

Note: TechnoFix® ResiCon PG Anchoring Adhesive can be equipped with the following materials:

Screw thread steel, round steel, lead screw, threaded rod, anti-crack anchor.

Typical Coverage at Standard Embedment Depth in Solid Substrate

Size	Hole Diameter Drill	Embedment Depth	Material Consumption per anchorage*	Number of anchorage by 300 ml cartridge*
	(mm)	(mm)	(ml)	
M8	10	80	3	100
M10	12	90	5	60
M12	14	110	6	50
M16	18	125	13	23
M20	24	170	24	13
M24	28	210	55	6

*the indicated values do not include any wastage

Typical Coverage at Standard Embedment Depth in Hollow Block

Size	Hole Diameter Drill	Embedment Depth	Material Consumption per anchorage*	Number of anchorage by 300 ml cartridge*
	(mm)	(mm)	(ml)	
M6	10	80	5	60
M8	12	90	13.1	22
M10	14	110	21.6	13
M12	18	125	21.6	13

*the indicated values do not include any wastage

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18	25	270	88.31	4.41	15d
18	25	360	117.74	3.31	20d
20	28	200	82.06	4.75	10d
20	28	300	123.09	3.16	15d
20	28	400	164.12	2.37	20d
22	30	220	103.62	3.76	10d
22	30	330	155.43	2.5	15d
22	30	440	207.24	1.88	20d
25	32	250	133.97	2.91	10d

The table of glue use amount of TechnoFix® ResiCon PG

25	32	375	200.96	1.94	15d
25	32	500	267.95	1.45	20d

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