



MAXPATCH®

TWO-COMPONENT, PATCHING MORTAR FOR REPAIRING CONCRETE FLOORS AND CONTINUOUS DECORATIVE FINISH IN MINIMUM THICKNESS



ENVIRONMENTAL PRODUCT DECLARATION



DESCRIPTION

MAXPATCH® is a two-component product. Component A is an acrylic-based liquid resin, and component B is a mortar composed of a mixture of special cements, additives and well-graded aggregates. Once mixed, it provides an advanced mortar with high performance and mechanical properties (adhesion, abrasion resistance and compressive strength) suitable for restoration and

patching of concrete floors, ramps, steps, etc., subject to pedestrian or heavy road traffic.

It is also available for continuous decorative and aesthetic finish, without joints, the type **MAXPATCH® FINO**, with smaller aggregate size, to be used in thickness layer from 1 to 5 mm, on previously levelled substrates with **MAXPATCH®**.

APPLICATION FIELDS

- Restoration of paving and concrete floors, roads, loading areas and surfaces subject to high wear in warehouses, parking garages, truck docks, hangars, industrial facilities, etc.
- Patching of horizontal surfaces to be levelled or lifted.
- Repair and finishing of non-slip ramps with high resistance to traffic wear.
- Restoration of concrete steps and stairs.
- Aesthetic coloured finish for flooring, seamless and without joints

ADVANTAGES

- Rapid return to service for light/heavy road traffic after 24 hours and 3 days, respectively.
- Allows layers from 5 to 25 mm thick.
- High mechanical strengths and wear-resistance.
- Good resistance to aggressive environments.
- Good adhesion to concrete.
- Allows whether smooth or anti-slip finish.
- It can be pigmented during mixing and treated on the surface with acids and clear finishes to achieve a decorative finish.
- Easy to use and good workability.

APPLICATION INSTRUCTIONS

Surface preparation

Remove all disintegrated or unsound concrete until achieving a structurally resistant substrate. Square cut or undercut the perimeter of the area to be patched to a depth of at least 5 mm. Avoid small or sharp angles in the edge of the patch. When repairing expansion joints, edge joints must be cut at least 30 mm of deep.

Surface must be thoroughly cleaned, free of dust, dirt, coatings, cement slurries, oil, grease or any other foreign material that could affect the adhesion. Use water blasting or equivalent mechanical means to clean concrete and provide an open textured surface.

Saturate the surface with water, taking care to avoid puddles, and begin application once the surface has taken on a matt appearance. If it dries out, saturate it again with water.

Mixing

MAXPATCH® is supplied as a two-component pre-weighed set. Pour 3,5-4,0 litres of component A per 25 kg bag of component B into a clean container

and then slowly add **MAXPATCH®** to the liquid, mixing by a slow speed electric drill (400-600 rpm) fitted with a disc mixer, for about 2-3 minutes until achieving a smooth, lump-free and homogeneous mortar. Allow the mixture to rest for 1-2 minutes to fully wet out all the powder and remix briefly before applying.

Mix only the amount of **MAXPATCH®** that can be placed in 20 minutes. After this time, mortar will have started its setting and will no longer be workable. If necessary, remix to keep the workability of the mortar but do not add more water.

Application

For an optimum adhesion prepare bonding slurry, mixing 5 parts of component B and 1 part of component A, until achieving a homogeneous consistency without any lumps. Apply the bonding slurry on the surface by brush **MAXBRUSH®** or broom **MAXBROOM®**.

Patches up to 25 mm thick:

When bonding slurry begins to lose brightness but is still fresh, start application of **MAXPATCH®** by trowel on the bottom and sides of patch with a maximum thickness per layer up to 25 mm. If slurry dries up, or the previous layer is completely set, apply a new slurry coat to continue the job.

If several layers are required, provide a roughened surface to improve the adhesion of successive layers, i.e. each lift should be scored and allowed to set for 30 minutes before applying the next one. If the primer coat or the previous layer has dried, apply a fresh coat of primer before continuing with the work.

The surface can be levelled using a trowel or straight edge; however, to prevent cracking, do not work on or rework the material once it has started to set. Before the initial set of the mortar, level and trowel the surface to the desired finish. To provide a non-slip surface, comb slightly the surface with brush **MAXBRUSH**.

Patches deeper than 25 mm thick in single layer:

Add 8 kg of clean silica sand, free of fine particles, and with maximum size up to 10 mm, per each 25 kg of **MAXPATCH®**. Mix dry both compounds before adding the liquid. Use as mixing liquid a dilution composed of 1 part of resin component A and 1 part of water.

Add the mixing liquid to obtain a workable mortar, bearing in mind that the amount of liquid will be slightly reduced compared to the pure product. Once the bonding slurry has lost its brightness, begin applying the mortar as described in the previous section.

Application conditions

Do not apply if rain or temperature below 5°C is expected within 24 hours after application. Do not apply

to frozen or frost-covered surfaces. For applications at high temperatures, strong winds and/or low relative humidity, thoroughly wet the substrate with water. Avoid direct exposure to the sun in extreme temperatures. In conditions of high temperatures, wind, low relative humidity and/or direct exposure to the sun, prevent **MAXPATCH®** from drying out too quickly by maintaining its moisture for at least the first 24 hours after application, either by covering it with plastic sheeting or damp burlap, or by spraying water onto the surface of the mortar, taking care not to wash it away.

Curing

Allow **MAXPATCH®** to cure for 24 hours, 48 hours and 3 days at 20°C, before pedestrian traffic, light traffic and heavy traffic, respectively. Lower temperatures and/or higher relative humidity levels increases the curing time.

Cleaning

All tools and equipments must be cleaned immediately with water after use. Once product hardens, this can only be removed by mechanical means.

CONSUMPTION

Application of pure product: estimated consumption of **MAXPATCH®** or **MAXPATCH® FINO** is 2,0 kg/m² per mm thickness. A 30 kg set fills a volume of about 15 litres.

Application by adding silica: a mixture consisting of 8 kg of sand per 25 kg bag of **MAXPATCH®** fills a volume of about 20 litres. Approximately 1,4 kg/m² per mm thickness of **MAXPATCH®**.

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

IMPORTANT INDICATIONS

- Do not add non-specified compounds to the mix.
- Use the recommended amounts of mixing liquid.
- Keep the recommended thickness per layer.

- To restore the workability of the material, re-mix it, but under no circumstances add any more water. Do not mix more material than can be applied within 20-30 minutes.
- Do not use leftovers from previous mixes.
- Do not apply to water-repellent surfaces, bituminous materials, plaster, paint and/or metal surfaces.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXPATCH® and **MAXPATCH® FINO** are supplied in pre-weighted sets of 30 kg as a two-component product: The resin Component A in 5 litre jerrycan or 25 litre jerrycan. The cement powder component B in 25 kg bag or 25 kg metal drum.

It is available in the following colours: dark grey, medium grey, pearl grey, anthracite, Dakota grey, grey, white and ivory.

STORAGE

In its original packaging component A twelve months and component B twelve months in bag or eighteen months in drum respectively. Store in a cool, dry and covered place, protected from moisture, freezing and direct exposure to sunlight at temperatures above 5°C.

SAFETY AND HEALTH

MAXPATCH® is not a toxic product but is an abrasive compound. Avoid direct contact with skin and eyes, and breathing dust. Use rubber gloves and safety goggles during application. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for **MAXPATCH®**.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

TECHNICAL DATA

Product characteristics		
CE Marking, EN 1504-3		
Description. Polymer hydraulic cement mortar (PCC) for non-structural repair of concrete. Uses: Building and civil engineering works.		
Principles / Methods. Concrete restoration by applying mortar by hand (Principle 3-CR / 3.1)		
General appearance and colour of Component A	White milky liquid	
General appearance and colour of Component B	Pigmented powder	
Density of component A, (g/cm ³)	1,02 ± 0,05	
Density of component B, (g/cm ³)	1,30 ± 0,10	
Maximum aggregate size (mm)	MAXPATCH®	MAXPATCH® FINO
	< 0,8	< 0,4
Mixing ratio, (% , by weight)	15 ± 1	
Application and curing conditions		
Minimum application temperature (°C)	> 5	
Pot life at 20°C & 50 % R.H., (min)	20-30	
Waiting time between layers at 20°C & 50 % R.H., (min)	> 30	
Curing time at 20°C & 50 % R.H., (d)		
	- Pedestrian traffic	1
	- Light traffic / Heavy traffic	2-3
Cured product characteristics		
Requirement for repair products, EN 1504-3 (Class)	R3	
Compressive strength at 28 days, EN 12190 (MPa)	31	
Flexural strength, (MPa)	10,5	
Chloride ion content, EN 1015-17 (% , by weight)	≤ 0,05	
Adhesive bond on concrete at 28 days, EN 1542 (MPa)	2,9	
Carbonation resistance, EN 13295, d _k (mm). Control concrete 4 mm	1,0	
Elastic modulus, EN 13412 (GPa)	17,6	
Thermal compatibility		
	- Part 1: Freeze-thaw, EN 13687-1 (MPa)	2,2
	- Part 2: Thunder shower, EN 13687-2 (MPa)	2,6
	- Part 4: Dry cycling, EN 13687-4 (MPa)	2,2
Capillary absorption, EN 13057 (kg/m ² ·h ^{0,5})	0,01	
Slip/skid resistance value, UNE-ENV 12633 (Rd)	>45 / Class 3	
Chemical resistance:		
	Ca (OH) ₂ (10 % by weight in water solution)	Intact / Unaffected
	NaOH (10 % by weight in water solution)	
	Lactic acid	
	Fuel, Xylene, Methyl-ethyl-ketone, (SAE 30) Motor oil	
Chemical resistance:		
	Citric acid (10% by weight in water solution)	Intact and abraded slightly
	Trichloro-ethylene	
Thickness / Consumption*		
Thickness per layer MAXPATCH® / MAXPATCH® FINO (mm), pure / recommended	5-25 / 1-5	
Consumption per layer as pure product (kg/m ² per mm thickness)	2,0	

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®**, **S.A.U.** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.