MAXPATCH® -MC

METHACRYLATE MORTAR FOR VERY URGENT REPAIRS OF PAVEMENTS AND LOW TEMPERATURE USE

DESCRIPTION

MAXPATCH® -MC is a two-component product. Component A is a methacrylate-based resin and component B is a mortar based on special cements and additives. Once mixed with well-graded aggregates ***DRIZORO® SILICA***, is achieved a very fast setting repair mortar designed for urgent restoration of concrete pavements subject to heavy traffic, even at low temperatures, and its opening to service in 1 hour.

MAXPATCH® -MC is supplied in two types depending on temperature use: ***MAXPATCH® MC –S*** for use above 0 ºC, and ***MAXPATCH® MC –W*** use between 0 ºC to -20ºC.

APPLICATION FIELDS

- Urgent repairs in 1 hour of all concrete paving exposed to heavy wearing and wheel traffic in industrial floors, warehouses, loading areas, etc.
- Urgent repairs of outdoor concrete paving in expressways, airport runways, bridge decks, parking areas, etc at very low temperature and extreme winter conditions.
- Joint edge repair and floors to be levelled or lifted for food, chemical and pharmaceutical industry in freezing chambers, processing areas, etc.
- Urgent anchoring and fixing, even at low temperatures, of bolts and other metal elements.

ADVANTAGES

- Very fast-setting and return to service for heavy traffic: 1 hour.
- Suitable for a wide range of temperatures: from - 20 ºC to + 40 ºC.
- Allows repair layers from 5 mm to 120 mm thick, depending on the aggregate used.
- High early and ultimate mechanical resistance, wearing resistance and excellent impact resistance.
- Good chemical resistance to diluted acids and alkali, greases, petrol, aggressive environments, etc.
- Good thermal resistance; suitable for cleaning treatments with steam and/or hot water.
- Good adhesion to concrete.
- Weathering and UV-rays resistant. For outdoor use.
- Allows to be coated once cured.
- Good workability and application.

APPLICATION INSTRUCTIONS

Surface preparation

Remove all disintegrated and 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 3-5 mm. Avoid sharp angles in the corners of the patch.

Surface must be thoroughly cleaned, free of dust, dirt, coatings, efflorescence, oil, grease or any other foreign material that could affect to adhesion. For substrate preparation, provide a mechanical treatment by dry sand-blasting, scarification or other abrasive method to achieve an open texture surface.

Surface moisture content should not exceed 4 %. Do not apply on substrates subject to rising damp or negative water pressure.

Mixing

MAXPATCH® -MC is supplied as a pre-weighed two-component set. Pour Component A into a clean container followed by the powder component B, and mix thoroughly with a slow speed electric drill (400-600 rpm) fitted with a disc mixer, for about 1-2 minutes until achieving a homogeneous mixture in colour and appearance. Then add the proper amount of aggregates ***DRIZORO® SILICA*** and continue mixing until a homogeneous mortar consistency is achieved. Do not mix for prolonged period nor use high-speed mixer, which may heat the mixture or introduce air bubbles. Mix only the amount of ***MAXPATCH® -MC*** that can be placed within 10 - 15 minutes. After this time, initial setting-time begins and will no longer be workable.

Repairs from 5 mm to 15 mm thick:
Mix one set of ***MAXPATCH® -MC*** and 10 kg of ***DRIZORO® SILICA 0308*** with granulometry from 0,3 to 0,8 mm.

Repairs from 15 mm to 120 mm thick:
Mix one set of ***MAXPATCH® -MC*** and 12,5 kg of ***DRIZORO® SILICA 3050*** with granulometry from 3 to 5 mm.

Repairs from 120 mm thick:
Mix one set of ***MAXPATCH® -MC*** and 20 kg of ***DRIZORO® SILICA 3050***.

Other mixes with different silica ratio and granulometry can be done, depending on thickness application, final use, consistency and properties desired of the mortar. Perform a preliminary test on job-site to ascertain the proper ratio.

Application
Apply ***MAXPATCH® -MC*** by trowel to the desired thickness. If several layers are required, scratch surface with the trowel to improve the adhesion of the next one, which can be applied within 30 minutes approximately depending on temperature conditions. Finish the repair by metal trowel or rule for a smooth surface, or combing slightly with brush ***MAXBRUSH®*** or broom ***MAXBROOM®*** for a non-slippery surface. Do not overwork surface once the initial setting-time begins.

Application conditions
Do not apply if rain, water contact, damp or dew is expected within 1-2 h after application.
Provide an adequate ventilation for indoor use.

Curing
Allow ***MAXPATCH® -MC*** to cure for 1 hour before opening to traffic.

Cleaning
All tools and equipments must be cleaned immediately with ***MAXSOLVENT®*** after use. Once product cures, this can only be removed by mechanical means.

CONSUMPTION

Estimated consumption of ***MAXPATCH® -MC*** mixed with ***DRIZORO® SILICA*** is 2,2 kg/m^2·mm thickness. One set of 20 kg ***MAXPATCH® -MC*** mixed with 10 kg ***DRIZORO® SILICA 3050***, fills a volume of 13,6 litres approximately. One set of 20 kg ***MAXPATCH® -MC*** mixed with either 12,5 kg or 20 kg ***DRIZORO® SILICA 3050***, fills a volume of 14,7 litres and 18,2 litres respectively.

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

IMPORTANT INDICATIONS

- Do not add cements, additives, solvents or other non-specified compounds.
- ***DRIZORO® SILICA*** sand must be completely dry before mixing with ***MAXPATCH®-MC***.
- Observe the recommended thickness per layer.
- Do not use leftovers from previous mixes.
- Do not apply on vitrified or enamelled substrates, or treated with water repellents. Do not apply on bituminous materials, metals, wood, plasters or paints.
- For temperature application below -20ºC, consult the Technical Department.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXPATCH® -MC is supplied in pre-weighed two-component set of 20 kg. Component A in 2,2 kg can and component B in 17,8 kg bag.
DRIZORO® SILICA 0308 and ***DRIZORO® SILICA 3050*** is supplied in 25 kg bag.

STORAGE

Twelve months in its unopened undamaged original packaging. Store in a cool, dry and covered place, protected from moisture, freezing and direct sunlight, with temperatures from 5 ºC to 30 ºC.

SAFETY AND HEALTH

Component A of ***MAXPATCH® -MC*** is a flammable product so all storage, transport and handling precautions must be observed for this kind of product. Do not smoke in working areas and provide adequate ventilation for indoor use.

MAXPATCH® -MC is not a toxic product but is an abrasive composition. Avoid skin and eye contact, 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.

Do not breathe vapours from heating of product.
Consult the Material Safety Data Sheet for ***MAXPATCH®-MC.***

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	
Appearance and colour of Component A	Clear liquid
Appearance and colour of Component B	Grey powder
Density of component A, (g/cm^3)	0,95 ± 0,10
Density of component B, (g/cm^3)	1,30 ± 0,10
Density of fresh mortar A+B+ ***DRIZORO SILICA***, (g/cm^3)	2,20 ± 0,10
Application and curing conditions	
Minimum/ maximum application temperature for substrate and ambient, (ºC) ***MAXPATCH® MC-W/ MAXPATCH® MC-S***	 -20 ºC to 0ºC/ 0ºC to +40 ºC
Pot life A + B, (min)	10 – 15
Initial and final setting-time, (min)	15 / 30
Opening time for traffic, (h)	1
Cured product characteristics	
Compressive strength at 20 °C, 1 hour / 4 hours/ 1 day / 28 days, (MPa)	>40 / >50 / >60 / >80
Flexural strength at 20 °C, 1 hour / 4 hours/ 1 day / 28 days, (MPa)	>12 / >13/ >15 / >20
Adhesion on concrete at 28 days, (MPa)	>3 (Breaks concrete)
Thickness / Consumption*	
Minimum and maximum thickness per layer (mm) - Mixed with ***DRIZORO SILICA 0308*** - Mixed with ***DRIZORO SILICA 3050***	 5 – 15 >15
Consumption (kg/m^2·mm thickness) - For 1 set ***MAXPATCH® MC*** + 10 kg ***DRIZORO SILICA 0308*** - For 1 set ***MAXPATCH® MC*** + 12,5 kg ***DRIZORO SILICA 3050*** - For 1 set ***MAXPATCH® MC*** + 20 kg ***DRIZORO SILICA 3050***	 1,47 + 0,73 1,32 + 0,88 1,1 + 1,1

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

Address: Unit 4/92 Bryant Street Padstow, NSW 2211, AUSTRALIA
Tel: +61 2 9771 0011
Email: info@swppl.com.au **ABN:** 155 659 948
National Hotline: 1300 303 301

http://swppl.com.au/