



MAXPATCH[®] -MMA

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

DESCRIPTION

MAXPATCH[®] -MMA 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 fast-setting repair mortar applicable even at low temperatures, with high mechanical and chemical performance, suitable for very urgent repair of concrete pavements with all types of road traffic.

MAXPATCH[®] -MMA is supplied in two versions depending on application temperatures: **MAXPATCH[®] MMA -S** from 0°C to 35°C, and **MAXPATCH[®] MMA -W** from 0°C to -30°C.

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 high application thickness in freezing chambers.
- Urgent repairs of outdoor concrete paving in expressways, airport runways, bridge decks, parking areas, etc at extremely 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 - 30°C to +35°C.
- 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 sandblasting, 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[®] -MMA is supplied as a pre-weighed two-component set. Depending on application thickness, the product can be applied pure or with a mixture of selected **DRIZORO[®] SILICA** aggregate. For pure product applications, 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. If the use of aggregate is required, first mix the Component B with the aggregate, and then add to the liquid Component A, mixing progressively 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.

Applications with thicknesses from 5 mm to 10 mm:
Apply **MAXPATCH® -MMA** as a pure product.

Applications with thicknesses from 10 mm to 15 mm:

Mix a set of **MAXPATCH® -MMA** and 7.3 kg of **DRIZORO® SILICA 1020** with granulometry from 1,0 to 2,0 mm.

Applications with thicknesses from 15 mm to 20 mm:

Mix a set of **MAXPATCH® -MMA** and 11,3 kg of **DRIZORO® SILICA 3050** with granulometry from 3,0 to 5,0 mm.

Applications with thicknesses greater than 20 mm:
Mix a set of **MAXPATCH® -MMA** and 15.9 kg of **DRIZORO® SILICA 3050** with granulometry from 3,0 to 5,0 mm.

In all cases, the pot-life is about 15-20 minutes. Mix the amount of material to be applied within the first 10 minutes, after this time the mortar begins to set and the product loses the workability.

Other mixing ratios and aggregate granulometry are allowed, depending on the required properties of the mortar and desired end use. Perform a preliminary test on jobsite to ascertain the proper ratio.

Application

On substrates with excessive porosity or applications in large areas, it is recommended to previously apply **MAXFLOOR® MMA -P** or **MAXFLOOR® MMA -PW** primer (wet substrates). Before application, consult the respective Technical Bulletins.

Apply **MAXPATCH® -MMA** by trowel without excessive pressure against the edges and bottom of the area to be repaired, in layers that do not exceed the maximum recommended thickness depending on the type of aggregate used.

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 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.

For applications in freezer rooms in service, try, whenever possible, to mix the product under ambient temperature conditions.

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® -MMA** to cure for 1 hour before opening to traffic. For applications at temperature conditions below 0°C, this time may be slightly longer.

Cleaning

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

CONSUMPTION

Estimated consumption of **MAXPATCH® -MMA** mixed with **DRIZORO® SILICA** is 2,2 kg/m²·mm thickness. Following table shows volume to be filled by one set of **MAXPATCH® MMA** with the recommended dosages:

Dosages	Volume to be filled
1 set MAXPATCH® MMA	10,3 litres
1 set MAXPATCH® MMA + 7,3 kg DRIZORO® SILICA 1020	13,4 litres
1 set MAXPATCH® MMA + 11,3 kg DRIZORO® SILICA 3050	15,5 litres
1 set MAXPATCH® MMA + 15,9 kg DRIZORO® SILICA 3050	17,6 litres

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on jobsite 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® -MMA**.
- Open time and curing time may vary depending on humidity and temperature conditions.
- Observe both the mixing ratios and recommended thickness per layer.
- Do not mix more material than can be applied in 10 minutes.
- 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, wood, plasters, or paints.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXPATCH® -MMA is supplied in pre-weighed two-component set of 22,86 kg. Component A in 2,86 kg can and Component B in 20 kg bag.

DRIZORO® SILICA 0308 and **DRIZORO® SILICA 3050** 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°C to 30°C.

SAFETY AND HEALTH

Component A of **MAXPATCH® -MMA** 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. Do not inhale the vapours that may be produced by heating the product.

MAXPATCH® -MMA 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.

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

Disposal of the product and its packaging should be conducted 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)	1,01 ± 0,1
Density of component B, (g/cm ³)	1,50 ± 0,1
Density of fresh mortar A+B+ DRIZORO SILICA , (g/cm ³)	2,20 ± 0,1
Application and curing conditions	
Minimum/ maximum application temperature for substrate and ambient, (°C) MAXPACTH® MMA-W/ MAXPACTH® MMA-S	-30°C to 0°C / 0°C to +35°C
Pot life A+B, (min)	15-20
Initial and final setting-time, (min)	15 / 30
Waiting time between layers, (min)	>30
Opening time for traffic, (h)	1
Cured product characteristics	
Compressive strength at 20°C and 4 h, (MPa)	90
Flexural strength at 20°C and 4h, (MPa)	33
Adhesion on concrete at 28 days, (MPa)	>3 (Breaks concrete)
Service temperature range, (°C)	From -40 to 120
Thickness / Consumption*	
Minimum and maximum thickness per layer, (mm)	
- Pure product	5-10
- DRIZORO SILICA 0308 . Product:aggregate mixing ratio = 3:1	10-15
- DRIZORO SILICA 3050 Product:aggregate mixing ratio = 3:1	15-20
- DRIZORO SILICA 3050 Product:aggregate mixing ratio = 2:1,5	>20
Consumption (kg/m ² ·mm thickness)	
- One set MAXPACTH® -MMA	2,20
- 1 set MAXPACTH® -MMA + 7,3 kg DRIZORO SILICA 0308	1,60 + 0,60
- 1 set MAXPACTH® -MMA + 11,3 kg DRIZORO SILICA 3050	1,45 + 0,70
- 1 set MAXPACTH® -MMA + 15,9 kg DRIZORO SILICA 3050	1,30 + 0,90

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on jobsite 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. To know the real data, a test on the jobsite must be done, and it will be conducted 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.



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