



WATMAT®

FLUID

QUICK-SETTING FLUID MORTAR FOR LEVELLING OF MANHOLE COVERS

DESCRIPTION

WATMAT®-FLUID is an one-component, fluid mortar, composed of special cements, well-graded mineral products and special admixtures which provides high mechanical properties and fluidity. It is suitable for levelling manholes and concrete floor repair when a rapid return to service is required.

APPLICATION FIELDS

- For resetting and levelling manhole covers on streets and public roads, concrete factory floors, etc.
- Filling cavities and voids around manholes.
- Urgent floor repairs, joint edge repairs and fixings.

ADVANTAGES

- Its short setting time, less than 2 hours, allows a fast return to service for the fixed elements.
- High early and ultimate mechanical strengths.
- High impact and abrasion resistance.
- Very fluid, it fills all gaps and the whole voids.
- High cohesion of the fresh mortar without segregation or bleeding.
- Very good adhesion on surfaces, it becomes structural part of the substrate and it withstands to repeated loads.
- One-component. Only water is required for mixing.
- Contains no chlorides or metal particles, it is non-corrosive for steel surfaces.
- Resistant to water, oil and grease: very low water absorption.
- Environmentally friendly: non-toxic, cement-base and solvent-free product.

APPLICATION INSTRUCTIONS

Substrate preparation

Concrete surface to be filled must be structurally sound, firm, without cement laitance and as uniform as possible, and preferably with a slight roughness. Remove all damaged and loose concrete until getting sound concrete and, sawcut

the edges perpendicularly to the surface to a minimum depth of 1 cm.

Surface must be clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum plasters, organic growth or any other contaminants that may affect to adhesion. For cleaning the substrate, use sand blasting or high pressure water cleaning methods, not being desirable aggressive mechanical means.

Once substrate has been prepared, dampen thoroughly the entire surface to be coated with clean water, avoiding the formation of puddles. If it gets dry, proceed to saturate with water again.

Mixing

A 25 kg bag of **WATMAT® FLUID** requires about 4,0 litres (16%) of water, depending on existing ambient conditions and desired consistency.

Pour the required amount of water in a clean container, and then slowly add **WATMAT® FLUID** 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 of fluid consistency. Do not mix for prolonged period nor use high-speed mixer, which may introduce air bubble. Allow the mixture to rest 1 minute so that any introduced air bubbles during mixing can disappear, and finally remix briefly before applying.

If product is mixed by hand, increase the mixing time until all lumps disappear. Do not use more water than the recommended ratio.

Mix only the amount of **WATMAT® FLUID** that can be poured in about 15 minutes. After this time, mortar will have started its setting and will no longer be workable.

Application

WATMAT® FLUID is placed simply pouring by gravity directly from the mixing container. In order to avoid cold joints and minimize the chance of air entrapment, **WATMAT® FLUID** should be placed in a continuously way and in one direction from one side to the other. If it is necessary, a manual vibration element can be used in order to help to fill the volume but an excessive vibration must be avoided as it may cause bleeding and air entrapment.

Application conditions

Do not apply with substrate and/or ambient temperature is at or below 5°C, or when temperatures are expected to fall below 5 °C within 24 h after application. Do not apply to frozen or frost-covered surfaces.

For applications at hot temperatures, low relative humidity and/or windy conditions, i.e. summer time, surface must be wet thoroughly with plenty of water prior to application and use cold water or cool the base with cold water.

Curing

Prevent rapid drying and protect from extreme heat and direct sunlight exposure to maintain its moisture for at least 1 hour after application, spraying a fine mist of water, without causing the washing or by using polythene sheeting or damp burlaps.

Cleaning

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

CONSUMPTION

Estimated consumption for **WATMAT[®] FLUID** is from 1,8 kg/m²·mm, with a thickness from 5 mm to 50 mm per layer. A 25 kg bag fills approximately 12,5-13,75 litres (from 0,50 to 0,55 litres per 1,0kg of product).

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

IMPORTANT INDICATIONS

- Do not apply on substrates vitrified or enamelled, or treated with water repellent agents.
- Do not apply over weak substrates.
- Use the recommended mixing ratios.
- Do not use leftovers from previous mixes.
- To restore the workability, remix the mortar but never add more water.
- Observe the recommended thickness per application.
- Setting time data is measured at 25 °C. Lower temperatures and/or higher R.H. values increase this value.

- With low temperatures keep the product in a warm place and use clean warm water to accelerate the setting time.
- With hot temperatures keep the product in a cool place and use fresh clean water for the mix. Mix small batches of material and apply immediately.
- Do not use in contact with very soft water, acid water and/or carbonic water. When sulphates are present, i.e., groundwater, seawater or wastewater, use the **WATMAT[®] FLUID ANTISULFAT** sulphate-resisting version.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

WATMAT[®] FLUID is supplied in 25 kg bags. It is available in standard grey colour.

STORAGE

Twelve months in its unopened and undamaged original sealed packaging. Store in a cool, dry and covered place, protected from moisture, freezing and away from direct exposure to sunlight at temperatures above 5 °C.

SAFETY AND HEALTH

WATMAT[®] FLUID is not a toxic product but is an abrasive composition. Avoid direct contact with skin and eyes, and breathing dust. Use rubber gloves and safety goggles when handling, mixing and applying the product. In case of contact with skin, wash affected area with soap and water. In case of contact with eyes, rinse immediately thoroughly with clean water but do not rub. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for **WATMAT[®] FLUID**.

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		
General appearance and colour	Grey powder	
Maximum aggregate size, (mm)	< 0,8	
Density for powder, (g/cm ³)	1,35 ± 0,10	
Density for mixed mortar, (g/cm ³)	2,15, ± 0,10	
Density for dry and cured mortar, (g/cm ³)	1,35 ± 0,10	
Mixing water, (% by weight)	16	
Segregation	No	
Application and curing conditions		
Minimum application temperature for substrate and ambient, (°C)	> 5	
Pot life at 25 °C & 50 % R.H., (min)	About 15	
Initial / Final setting time at 25 °C & 50 % R.H., (min)	30 - 40 / 45 – 50	
Cured product characteristics		
Mechanical strengths, (MPa) - 1 hour - 24 hours - 7 days - 28 days	Flexural strength	Compressive strength
	2,5	9,0
	4,5	30
	6,5	46
	8,0	52
Adhesive bond on concrete at 28 days, EN 1542 (MPa)	≥ 2,0	
Reaction to fire, EN 13501-1 (Euroclass)	A1	
Thickness / Consumption*		
Thickness as pure mortar per application, (mm)	10 – 60	
Consumption as pure mortar per application, (kg/m ² ·mm)	1,8	

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

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.



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