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# POSEIDON POOL PLASTER

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## MATERIAL TECHNICAL DATA SHEET

Test **SOURCE** water **PRIOR** to filling pool.

- PH
- Alkalinity
- Chlorine
- Phosphates
- Metals & Copper
- Cyanuric Acid
- Calcium Hardness

} @ **Builders Warehouse**  
@ **Chamberlains**  
@ **Pool Warehouse**

Send report to **060-849-3924**

Chemicals To Be Advised.

Dear client,

Thank you for choosing Poseidon Pool Plaster, we appreciate your business!

With your purchase we are providing you with the necessary data that will ensure a beautiful result.

Kindly read through this document thoroughly and let us know if you have any questions before proceeding with your renovation.

Please keep in mind that this document only serves as a guideline for yourself, and your contractor.

Poseidon pool plaster cannot guarantee the workmanship of the contractor conducting the renovation.

Should a failure arise for any reason, we will investigate it thoroughly but would require all the data such as mixing ratios, chemical test results, maintenance routines, date of marbelite application that includes weather conditions, number of applicators in the pool, number of bags used in ratio to overall sqm of the pool etc. It is best to note this down and to take pictures of the pool before application, during application and after to assist us with the investigation.

We will also ask for your weekly water test reports to investigate the chemical levels of the pool. If this cannot be provided we are unable to thoroughly do a proper investigation. Strip tests will not be accepted. Standard water testing for PH, Chlorine and Alkalinity will also not be accepted.

Please review our terms and conditions on the last page of this data sheet.

By receiving this data sheet whether in a hard or soft copy, you automatically agree to the terms and conditions as set out and explained in this data sheet.

Enjoy your Paradise Pool!

## Surface Preparation-New Pools

- The pool shell needs to be cured and sound.
- When the pool was rounded off and plastered on areas where the pool was smoothed /rounded off use river sand to create a nice rough surface for premium adhesion, not plaster sand.
- Create slurry No debris or foreign substances should be present in the pool that is not part of the bag of plaster provided or the additives required to mix into the mixture on the day of application.
- Please take note that your concrete shell was saturated properly the day before prior to applying your key coat/slush coat. Preferably this coat should have been applied as late as possible the previous day prior to the final application taking place.

## Surface Preparation-Existing Pool

- We recommend that the existing pool plaster be removed, however sometimes this is not the case, or required. Complete removal of the marbelite would only be required if the existing pool plaster is brittle, if there are hollow points in the existing pool surface and if the current plaster is delaminating (please inspect for damp as well as this would require that you need to do a damp proofing application prior to your slurry mix)
- When it has been established that the old marble plaster is sound then surface chipping can commence minimum 50mm apart 3-5mm deep. In the event of black algae or signs of rust or stains then everything should be removed to inspect and treat the issue on hand accordingly. Algae would need to be eradicated completely otherwise it will return.
- Acid wash the surface with a hydrochloric acid diluted 1:5 ratios to clean the old surface of dust and to neutralize any alkaline levels remaining in the plaster.
- Rinse this properly and continuously until no debris or acid remains. The pool should be rid of the acid completely, if not, this will create streaking in the plaster during application.
- Create a slurry with Marbelite mixed with Poseidon Pool plaster, 24 hours prior to plastering the pool.
- **SLURRY/KEY COAT FORMULA: Mix 5L Concentrate Marbelite with 15L of water. Mix Slush (Available for purchase in office) or ½ bag of Marbelite with the dilution until a runny mix is obtained which is then applied to the entire pool surface within 24 hours prior to the marbelite application. Remainder of the diluted marbelite/bonding can be used on day of application of marbelite.**
- If a slurry was applied it would not allow water to penetrate through the existing shell, therefore it is important to saturate the pool shell prior to adding your slush coat.

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# Mixing And Application

## **ALWAYS MEASURE THE WATER QUANTITY PER BAG.**

- START the mix with 4 Liters of water with 1L of **diluted** marbelite/bonding per 40KG bag which gives you a total liquid quantity of 5 L per 40kg bag. This can go up to 6.5L per 40kg/bag. It is recommended to start with a lower liquid quantity per bag until an optimum consistency is achieved.
- **NEVER USE A HOSEPIPE TO 'MEASURE' WATER**
- Never marbelite a pool below 10 degrees in winter and 30 degrees in summer.
- If you are using our Marbelite bonding liquid, mix the bonding liquid with your water quantity and add to your dry mix together. *For example, if 20 bags are used to marbelite a pool, 20 L of bonding (5l diluted with 15L water) would be required along with 110L of water to give you a total liquid quantity of 130L to cover the 20 bags of marbelite.*
- The overall consistency of the marbelite mix should look like stiff pap/oatmeal/peanut butter. The marbelite should stick to the wall as it is being applied. Runny marbelite indicates that too much water was added to the mix.
- Do not add any accelerators such as calcium to your mix. Our marbelite consists of a 52.5 class 1 cement which has early strength gaining properties already included.
- Use a clean rounded steel trowel for application.
- Marbelite should be applied on the walls first, starting at the deep end of the pool working outwards toward the entry level of the pool.
- For swift application, we recommend using one skilled plasterer for every 10-15 sqm of pool surface.
- Execute a light mist over the entire pool once plastering is done to prevent premature curing which may lead to hairline cracks on the marbelite surface.
- Allow a 24-hour drying time before filling the pool.
- Do not walk inside the pool after it has been plastered.
- Keep dogs away from the pool area after plastering.

## **After Care Maintenance**

### **TEST THE SOURCE WATER FOR CALCIUM, ALKALINTY, METALS BEFORE ADDING WATER TO THE POOL AFTER COMPLETION**

- It is imperative that the source water be tested prior to filling. A comprehensive report is required.
- **DO NOT USE BOREHOLE WATER TO FILL YOUR POOL**-Precautions need to be taken into account. Please consult with a representative.
- **DO NOT USE FLOATERS!** Floaters tend to migrate to one side of the pool when the pump is switched off. The chlorine inside the floater continues to dispense, which creates white marks in the pool. Floaters can be introduced to the pool after 21 days and tied to the

pipes of the automatic pool cleaner, in the middle of the pool. Please consider that floaters will decrease the overall PH of the pool as its PH reading sits at 2ppm (acidic)

- A lack of calcium in the water will cause etching in the pool. White blotches may appear on the marbelite which is a clear sign that the water is calcium hungry, drawing calcium out of the marbelite
- Too much calcium will create scaling and lead to cloudy pool water
- Should your pool contain metals (borehole water) it is important to add in metal and stain remover once the pool is filled or, in some cases, while the pool is filling up.
- After required chemicals have been added to the pool (usually diluted and inserted through the weir on bypass for 12 hours) the next batch of chemicals can be added.
- Recommended chemicals: Granular chlorine, Alkalinity Booster, Algaecide (may include metals-please do not use if you have a high metal content in the pool) Alum powder (used to lower phosphate levels in the pool)
- Chemicals should always be added to the weir and NEVER directly into the pool.
- Salt chlorinated pools will have to be disconnected or bypassed for the first 4 months. Adding salt to your newly renovated pool, will erode the marbelite and create a rough surface
- Never use Hydrochloric Acid as part of your maintenance routine, Acid is only ever used to lower PH levels. Water testing should be done weekly to keep track of existing chemical levels to ensure an overall balance.
- Daily brushing is required on newly plastered pools to avoid dust build up from occurring while the marbelite is curing. Use a soft nylon brush to conduct brushing. Do not brush vigorously. Automatic pool cleaners can only be introduced 3 weeks post renovation. In the interim, a pool vacuum can be used to rid the pool of accumulated dust and debris particles. Do not use the 8-wheel vacuum as that will create lines on the marbelite.
- Keep the water level maintained midway of the weir
- If a sand change is not done as part of the renovation, conduct a full backwash and rinse cycle before switching over to the filter setting.
- TAKE NOTE OF YOUR LSI levels in the pool. This can be calculated online when searching for LSI levels. The LSI tells us how saturated our water is with calcium carbonate ( $\text{CaCO}_3$ ). Perfect saturation is 0.00 LSI, and the acceptable range is between -0.30 to +0.30 LSI. If the LSI is -0.31 or below, water is aggressive because it is under-saturated with calcium carbonate.

## Weekly Pool Maintenance

- **DO NOT USE FLOATERS!** Floaters tend to migrate to one side of the pool when the pump is switched off. The chlorine inside the floater continues to dispense which creates white marks/chemical bleaching in the pool. Floaters lower the overall PH in the pool due to its acidity content.
- Keep your pool in operation throughout the year. Do not switch off the system during winter.
- Test water on a weekly basis to maintain PH, Alkalinity, Calcium Hardness, Phosphates, Metals, Copper, Chlorine, Cyanuric Acid.
- Pools that are exposed to direct sunlight throughout the year should be protected with a solar blanket.

- **DO NOT COVER YOUR POOL WITH A SOLID COVER. Chemicals are unable to evaporate under a solid cover and will cause bleaching/scaling.**
- Keep sand change schedules in check. Dirty sand circulates dirty water which will mess up chemical levels in the pool.
- **NEVER ADD CHEMICALS DIRECTLY INTO THE POOL. CHLORINE DOES NOT DISSOLVE IN WATER AND WILL BLEACH THE MARBELITE.**
- Treatment chemicals such as algaecides and clarifiers should always be run on the bypass setting of the multiport and be administered directly into the weir, NOT IN THE POOL. Kindly note that all treatments will automatically raise PH levels in a pool. Keep this monitored.
- Weekly chlorine can be accompanied by 2 cups of alkalinity, administered directly into the weir and on Filter setting of the multiport. This ensures that chemicals circulate through your filter and return to the pool in an already diluted form. You will notice a big white cloud entering the pool from the aimflow.

## Chemical levels

Factors that commonly affect the balancing of swimming pool water, are the following:

- PH LEVELS
  - TOTAL ALKALINITY
  - CALCIUM HARDNESS
  - CYANURIC ACID LEVELS (STABILISER LEVELS)
  - CHLORINE LEVELS
  - METAL CONTENT (COPPER AND IRON LEVELS)
  - TOTAL DISSOLVED SOLIDS (TDS)
  - WATER TEMPERATURE
1. **PH LEVELS**-The balance between acidity and alkalinity is referred to as PH
    - a. PH ranges from 1.0 to 14.0
    - b. Recommended levels are between 7.4 and 7.6
    - c. Increase PH using 'SODA ASH' (marbelite pools)

The effects of incorrect PH levels in your swimming pool	
Below 7.0 (Too Low)	Over 7.6 (Too High)
• Etched Marbelite	• Eye Irritation
• Chlorine Loss	• Scale Formation
• Stained Marbelite	• Cloudy Water
• Eye Irritation	• Pool Chlorine Efficiency
• Corroded Metal	• No Disinfectants
• Killing of Alkalinity	

2. **TOTAL ALKALINITY**-Alkalinity buffers the water against sudden changes in PH
  - a. **Marbelite Pools = 80 to 120mg/l**
  - b. **1kg moves 10ppm**

### 3. **CALCIUM HARDNESS**

Calcium Hardness indicates the calcium ion content of the water. Total hardness is the total mineral content of the pool water, which is a combination of calcium and magnesium ions.

High levels can promote scale and cloudy water if the water is incorrectly balanced. Low levels can promote corrosion and lead to grout loss. Should your source water lack the appropriate levels for CALCIUM HARDNESS, it will extract it from the cement used in the marbelite which will cause staining and affect the overall appearance of the marbelite

#### **Recommended Levels:**

- Marbelite pools = 220 to 400 mg/l but can still create scaling
- Hard water is usually less corrosive than soft water

### 4. **Cyanuric acid levels (stabilizer levels)**

- a. Minimum 10ppm
- b. Ideal 30-50ppm
- c. Maximum 80-100ppm

Low stabiliser levels (Below 40ppm) will cause your chlorine to be used up much quicker by the UV rays of the sun

High Stabilizer levels (over 80ppm) will need to be lowered by draining the pool partly and refilling until ideal levels are reached

### 5. **METALS**

Signs of metals present in swimming pools will be reflected in neon-like coloured water as well as brown stains on the surface of the swimming pool (Borehole water will do that)

- **METALS (COPPER):** A Metal which, when present will cause water discolouration (blue green) and/ or coloured stains in the pool.
  - **Recommended levels:** below 0.2 ppm
- **METALS (IRON):** A metal which, when present in high quantity in pool water, may cause coloured water (red/brown) or coloured stains on the pool surface.
  - **Recommended levels:** below 0.3 ppm

## Technical Data Sheet

<b>PRODUCT DESCRIPTION</b>	SWIMMING POOL PLASTER/MARBELITE CHEMICALLY ENGINEERED TO PROVIDE A SMOOTH FINISH
<b>TYPE OF CONCRETE USED</b>	CLASS 1 52.5 WHITE PORTLAND CEMENT
<b>SAFETY REQUIREMENTS</b>	GENERAL RESPIRATORY PPE APPLIES. DO NOT INHALE.
<b>COVERAGE OBTAINED</b>	2 SQM P/40KG BAG AT A THICKNESS OF 6-8MM
<b>PACKAGING</b>	PLASTIC. 540 X 910MM 200 MICRON BAG
<b>STORAGE</b>	KEEP OUT OF DIRECT SUNLIGHT.
<b>SHELF-LIFE EXPECTANCY</b>	6 MONTHS IF STORED AWAY FROM DIRECT SUNLIGHT
<b>COLOURS AVAILABLE</b>	72 DIFFERENT COLOURS
<b>MIXING TIME</b>	30 MINUTES
<b>SETTING TIME</b>	PRODUCT WILL START SETTING AFTER 45 MINUTES WITH FULL SETT WITHIN 90-1a20 MINUTES IN WINTER. QUICKER SETTING TIME DURING SUMMER
<b>CURING TIME</b>	28 DAYS CURING TIME TO ACHIEVE MPA PROVIDED THAT SPECIFICATIONS ARE FOLLOWED
<b>APPLICATORS/PLASTERERS</b>	1 QUALIFIED POOL PLASTERER FOR EVERY 10-15 SQM OF POOL SURFACE.
<b>SUMMER APPLICATION</b>	MIXING TO COMMENCE BEFORE 8 AM WITH EXIT TIME AT 11AM. MISTING OF POOL TO BE DONE EVERY HOUR AFTER APPLICATION
<b>WINTER APPLICATION</b>	MIXING TO COMMENCE AFTER 8 AM AND ABOVE TEMPERATURES OF 10 DEGREES
<b>SURFACE APPLICATIONS</b>	GUNITE, HAND PACKED, CONCRETE SURFACES. IT CAN NOT BE APPLIED OVER PREFABRICATED OR FIBERGLASS SURFACES
<b>WEATHER CONDITIONS</b>	BEWARE OF TEMPERATURES THAT CAN DROP TO FROST POINT DURING WINTER AND RAIN CONDITIONS DURING SUMMER. POOL REQUIRES A MINIMUM TIME FRAME OF 8-10 HOURS WITH NO RAIN.
<b>MARBELITE CARE AFTER APPLICATION</b>	APPLY A LIGHT MIST OVER THE MARBELITE SURFACE 2 HOURS AFTER APPLICATION TO PREVENT PREMATURE CURING AND SURFACE CRACKS. CONTINUE MISTING AFTER EACH HOUR. SHOULD HAIRLINE CRACKS APPEAR ON THE MARBELITE SURFACE-SEAL OFF WITH A CLEAN SPONGE.

# TROUBLESHOOTING

## Cracks, popping, delamination

- Too much water in the mix
- Over exposure of sunlight onto marbelite surface and not misting-Premature drying
- Filling the pool too early
- Over floating: Continuous floating over the marbelite will damage bonding properties in the marbelite and make it more vulnerable to cracks
- Weak areas in old marbelite not previously removed prior to new marbelite application
- Allowing traffic across the pool whilst applying the marbelite and after application.
- Incorrect preparation: minimal surface chipping,
- Using too little marbelite required for the surface and compensating the shortage by adding excess amounts of water to the mix
- Applying marbelite on too thick will create "sagged chipped areas"
- Extremely cold weather temperatures expand water will cause popping of the marbelite

## Unskilled Labour

- Not using enough marbelite to cover the complete surface area of the pool
- Not measuring water quantity per bag. If your marbelite mix does not have the overall consistency to look like stiff pap/oatmeal/peanut butter, there is too much water in the mix.
- Uneven floating inconsistency
- Burned Marbelite: Black streaks will appear over the surface
- White streaks on the marbelite indicate the use of too much water being added to the marbelite during troweling. (Plasterers dip their trowels into a bucket of water and "sprinkle" it onto the marbelite instead of wiping down the trowel with a sponge first)

## Application Times

- Marbeliting in winter below 10 degrees. Marbelite will take longer to cure during winter months. Do not fill up the pool standardly after 8 hours. Wait for marbelite to be fully dry.
- Marbeliting too late in summer will result in premature curing and an unworkable mix.
- During summer, plasterers should be out of the pool by 11 am

### **Not testing the source water**

- Too little calcium will cause etching and corrosion. Water becomes calcium hungry and will attack marbelite by drawing out the calcium. White blotching and streaks will appear over the marbelite surface
- Too much calcium in the pool will create scaling, cloudy water and will create a white blanket cover across the pool surface
- Water containing high metals (borehole) water will create metal stains in the pool
- Failing to keep PH levels in check will discolor the marbelite and etched plaster
- Low alkalinity levels will cause corrosion
- High alkalinity levels can result in scaling

### **Adding accelerators to the marbelite**

- Accelerators such as calcium hydrochloride i.e., calcium flakes do not speed up the setting time of the marbelite, it speeds up the overall mpa strength of the mortar mix.
- We make use of class 1 52.5 white portland cement which has strength gaining properties as is.
- We do not recommend adding calcium flakes to our marbelite at all, not even with white marbelite.
- Calcium flakes can be added to the pool after filling should water tests determine that it is required.

## **TERMS AND CONDITIONS:**

### **1. Product Quality and Warranty:**

- 1.1. The Company agrees that all plaster mixes supplied meet the industry standards for pool construction and repair at the time of sale.
- 1.2. The Company provides a limited warranty on the quality and durability of its products for a period of 6 months from the date of purchase, provided that the products are used and applied in accordance with the Company's guidelines.
- 1.3. The warranty is void if the products are improperly applied, exposed to abnormal environmental conditions, or used in conjunction with non-approved materials or methods.
- 1.4. The Company is not liable for colour variation, shading, or spotting that may occur due to improper water balance, application, or curing processes beyond the Company's control.

### **2. Limitation of Liability.**

- 2.1. The Company's liability for any defect or non-performance of the plaster mixes is limited solely to the replacement of defective products, or, at the Company's discretion, a refund of the purchase price.
- 2.2. The Company is not responsible for any incidental, indirect, or consequential damages arising from the use of its products, including but not limited to the costs of pool repairs, loss of use, or damage to third-party property.
- 2.3. The Company will not be held responsible for damages or defects caused by external factors such as poor workmanship, improper pool design or construction, inadequate water chemistry, weather conditions, or general wear and tear.

### **3. Application Guidelines.**

- 3.1. The customer acknowledges that the successful application and curing of the plaster mix are dependent on following the Company's provided instructions and industry best practices.
- 3.2. The Company recommends that the plaster mix be applied only by qualified and experienced professionals. The Company will not be liable for any damages or defects arising from improper application or misuse of its products.

### **4. Customer Responsibilities.**

- 4.1. The customer is responsible for ensuring that all pool surfaces are adequately prepared, clean, and free of debris before application.
  - 1.1 The customer understands and accepts that:
    - A. Source water **MUST** be tested before filling the pool.
    - B. Borehole water may contain metals and minerals that can stain or discolour the surface.

- C. Incorrect pH, alkalinity, calcium hardness, stabilizer, chlorine, metals, phosphates, or TDS levels can damage or discolour marbelite.
- D. Water must be professionally tested and balanced before and after filling.
- E. Weekly testing and chemical balancing are required to maintain the pool surface.

1.2 The customer acknowledges that failure to maintain proper water chemistry may result in discolouration, scaling, etching, staining, or surface damage.

1.3 The customer understands that ongoing maintenance is the responsibility of the pool owner or appointed maintenance company and acknowledges that Poseidon Pool Plaster cannot be held responsible for damage caused by:

- A. Incorrect chemical dosing
- B. Adding chemicals directly into the pool
- C. Use of floaters
- D. Failure to maintain filtration and equipment
- E. Failure to maintain chemical levels
- F. Failure to test water regularly
- G. Use of improper cleaning equipment
- H. Neglect or misuse of the pool
- I. Use of Solid Pool Covers