

TamCrete MPC 65

Dual Shrinkage Compensated High Strength Micro-concrete

normet

CONSTRUCTION CHEMICALS

TECHNICAL DATA SHEET

➤ Description



TamCrete MPC 65 is a mixture of cement, well-graded natural aggregates & some special polymer based non-shrinkable, pourable micro concrete. It's formulated to give high strength performance. It gives very high early strength. It is designed for structural repairs & cast new concrete structures, general purpose, rehabilitation of concrete structures and to form new durable concrete structure. It contains maximum size of aggregates 2mm.

➤ Key Benefits

- It's ready to use product, simply mix with water and use it. Aggregate sizes is 4mm
- No need to use any surface primer or bonding agent prior to application.
- Excellent bonding with steel & old concrete structures.
- Easy to repair all kind of complex structure.
- Easy to use for high strength structures.
- Easy to pour and good flow characteristic to allow ease of application.
- Positive expansion to ensure effective contact, fill gaps and support.
- Iron-free, eliminating staining or deterioration due to rust expansion.
- Chloride-free, allowing use in contact with reinforced steel.
- It can be applied starting from 20-200mm thicknesses.

➤ Typical Applications

- Heavy-duty support beneath load, bridge bearing. Units such as stanchion bases, machine base plates and crane rails.
- To repair old concrete & to cast new structures.
- Easy to fill in between the gap of all RCC/PCC structures of size > 20 mm.
- Pressure grouting & patch repairing works.
- Anchoring grout for anchor bolts.

➤ Technical Data

TamCrete MPC 65

Visual Appearance	Powder
Color	Grey
Density (Kg/m3)	Min. 2200
W/P Ratio	0.15
Expansion (%)	0.5 – 1.5
Flow (mm)	230 – 270
Compressive strength (ASTM C109 using 70mm cube)	1Day ≥ 25 MPa
	3Days ≥ 40 MPa
	7Days ≥ 50 MPa
	28Days ≥ 65 MPa
w/p for 30Kg Material	Approx. 4.3 – 4.7 Liter.
Application Temperature	+5 to + 40°C +5 to + 30°C
- Substrate	
- Mix of TamCrete MPC 65	

All above test completed at 25°C.

All technical data stated here is based on tests carried out under laboratory conditions.

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We recommend mixing TamCrete MPC 65 at site with said grades of aggregates as per the targeted strength specified in below mail.

TamCrete MPC 65 (By weight)	75%	50%
Aggregate 10mm-6.3mm (By weight)	25%	50%
Water / Powder Ratio	0.9 - 0.11	
Compressive Strength (ASTM C109 using 70mm cube)	Specified Limits	
1Day (MPa)	≥ 30	≥ 25
3Days (MPa)	≥ 40	≥ 30
7Days (MPa)	≥ 50	≥ 40
28Days (MPa)	≥ 60	≥ 50

➤ Application Guidelines

Mixing: - TamCrete MPC 65 is supplied in a ready to use form require only addition of fresh clean water. For optimum results, TamCrete MPC 65 must be mixed with a mechanical forced action mixer with a high shear stirrer. It is essential that the grouting operation is continuous hence ensuring enough labor and mixing capacity is available.

Note: DO NOT MIX BY HAND.

The selected water content should be accurately measured into a mixing vessel. Slowly add the dry powder (TamCrete MPC 65) while mixing. The mixing should continue for a maximum of five minutes until a uniform homogeneous consistency is obtained. Remove all loose traces, of cements and concrete, oil & grease to get a good surface.

Note: DO NOT ADD ADDITIONAL WATER. Discard any material that has hardened or stiffened. Do not use Warm water, it will reduce the workability time and reduce the flow.

Placing: - It is essential to pour at ambient temperature. The grout is placed within 30 minutes after mixing and this will ensure the expansion process will be maximized. Avoid trapping air and water by placing grout from one side only. It is recommended that a suitable head box be used to ensure continuous flow of grout. Ensure entire area to be grouted is filled by bringing level to above underside of machine base plate and remain at this level throughout grout placement. The grout head must be maintained at all times so that a continuous grout front is achieved. Do not use mechanical vibrators to assist in flow, as this will cause segregation of aggregates. For large areas, it is recommended that **TamCrete MPC 65** can be pumped. Refer to our Technical Department for detailed information.

Curing: On completion of grouting exposed area should be covered with plastic sheeting to prevent excessive moisture loss. Keep grout covered for a minimum of 24 hours. Remove formwork no sooner than 24 hours after completion of grouting and continue to cure with plastic sheeting. Lack of sufficient curing could result in plastic cracking and drying shrinkage on surface. The surface should be cured for at least seven days with either a curing compound TamCrete CCA.

Cleaning: TamCrete MPC 65 should be removed from tools and equipment with clean water immediately after use.

➤ Packaging

TamCrete MPC 65 is available in 30Kg Bag. Packaging size may vary subject to local regulations and requirements.

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➤ Storage

TamCrete MPC 65 should be stored at room temperature (min 10°C and max 40°C). Kept in dry and away from sunlight. Shelf life is 6 months if stored as specified. Protect from wet and rainfall areas.

➤ Health & Safety

TamCrete MPC 65 should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Health & Safety data sheet is available upon request from your local Normet representative.

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product. Please note regional climatic conditions may cause a variation in the performance of the product. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous data. Please check with your local Normet office to confirm that this is current issue TamCrete MPC 65 - V11N_Oct19