



TECHNICAL SHEET

HP05

1. DESCRIPTION

MORTERMAX® is a structural mortar based on sulfolabelitic cement, high modulus of elasticity aggregates, and chemical additives. The produced mortar has high adhesion to the substrate, mechanical strength, and resistance to wear by abrasion. It complies with the ABNT NBR 9781 standard for use on floors and pavements subjected to heavy traffic (vehicles with rigid wheels). It complies with DIN EN 196 for flexural and compressive strength.

2. USE AND APPLICATIONS

High-performance structural mortar for all types of repairs works and quick-release finishes. It can be used for any purpose where quick setting and strength gain, durability, low shrinkage, and high abrasion resistance are required, such as:

- Coatings for floors and pavements that require high resistance to abrasion wear.
- Floors subject to heavy vehicle traffic with rigid wheels.
- Repair of concrete floors and pavements subject to high traffic.
- Minimum thickness ≥ 5.0 mm and maximum ≤ 30.0 mm.

3. ADVANTAGES

- Easily prepared, with excellent consistency for application.
- High adhesion to the substrate.
- High resistance to abrasion wear.

4. CHARACTERISTICS OF MORTERMAX®

Property	Unit	Standard	Result
Bag weight	kg	-	20
Color	-	-	Beige / Gray
Initial set	min	-	≥ 20
Final set	min	-	≤ 60
Flexural Strength	MPa	NBR 13279	≥ 3 (24 h) ≥ 4 (72 h) ≥ 5 (7 days) ≥ 6 (28 days)
Compressive Strength	MPa	NBR 13279	≥ 20 (1 h) ≥ 40 (6 h) ≥ 50 (24 h) ≥ 60 (28 days)
Tensile Bond Strength	MPa	NBR 13528	≥ 1 (24 h) $\geq 1,5$ (72 h) $\geq 2,0$ (7 days) $\geq 2,5$ (28 days)
Dimensional Variation (Shrinkage or Expansion)	mm/m	NBR 15261	$\geq -0,10$ (24 h) $\geq -0,15$ (72 h) $\geq -0,20$ (7 days) $\geq -0,25$ (28 days)
Abrasion wear	cm ³	NBR 9781	≤ 23 (1 h) ≤ 20 (6 h) ≤ 20 (24 h) ≤ 20 (28 days)
Fresh concrete density	kg/m ³	NBR 13278	2225
Consistency index (slump)	mm	NBR 13276	≥ 200
Open time	min	-	≥ 30
Product validity	years	-	1

NOTE: The results presented in the table are under controlled laboratory conditions. On site, consider the effects of weather, as variations may occur due to relative humidity and/or temperature.

5. DOSAGE

Bag	Water Content (L)	Volume (L)	Nº of bags/m ³
1 (20 kg)	2,1	$\cong 11,9$	$\cong 84$

6. INSTRUCTIONS FOR USE

6.1 PREPARATION OF THE APPLICATION BASE

Mark the region that will receive MORTERMAX® using cuts or formwork. Scarify or sandblast the area until a rough finish is achieved. Clean the substrate with pressurized water, leaving it saturated, but without water accumulation. After that, prepare the MORTERMAX® bag for batching.

6.2 MIXING AND APPLICATION METHOD

In a clean and moistened container, add the contents of the MORTERMAX® bag along with the specified amount of water and mix with a portable helical mixer for 3 minutes, until a homogeneous mixture is obtained.

After mixing, apply MORTERMAX® immediately, compacting and pressing the material into the bottom and edges of the area with a mason's trowel or metal spatula. Then screed for leveling and finish the surface with a manual or mechanical trowel. The placing and finishing operations must be completed within 15 to 30 minutes after mixing the product.

It is important to emphasize that the hydration reactions and subsequent hardening of the product depend on weather conditions. At higher temperatures, MORTERMAX® open time is reduced, ranging from 10 to 20 minutes. For better performance, protect the repaired area with plastic sheeting to prevent the effects of wind, rain, and sun.

7. TRANSPORTATION

- Avoid platforms that can tear the bags;
- Use straps or bands to tie the bags. If using ropes, protect the contact points;
- When using forklifts, position the forks carefully to avoid puncturing the bags;
- To lift the bag, hold it from the bottom with both hands, supporting it lengthwise.

8. STORAGE

- Store the bags in a dry, covered place, away from heat sources, light, and humidity.
- Stack on flat, even surfaces;
- Prioritize using the bags with the longest storage time;
- Organize the rows in an orderly manner, maintaining a minimum spacing of 5 cm between them;
- For prolonged storage, position the bags horizontally.

9. PRECAUTIONS

MORTERMAX® contains cementitious materials that may cause skin and eye irritation. Avoid direct contact. It is recommended to:

- Use gloves and protective glasses;
- Wash exposed areas with plenty of water;
- In case of eye contact, rinse for 10 minutes and seek medical attention.