T9 Osmo

Mortar with a fluid consistency for rigid waterproofing in thrust and counterthrust of masonry and concrete structures composed of high-strength cements, selected aggregates and special crystallising additives Suitable for direct contact with drinking water according to Italian Ministerial Decree 174-2004.

BRUSH APPLICATION	NOTCHED TROWEL APPLICATION	
SiO_2 60 SILICEOUS AGGREGATES	SUITABLE FOR DRINKING WATER	NEGATIVE THRUST
ABRASION-RESISTANT	READY-TO-USE	EN 1504-2

Use this QR code to learn more about how to apply, view the safety data sheet and other information.

Product code 207

Technical characteristics

Mortar type UNI EN 1504-2 - Surface protection systems for concrete	**Coating (C) according to MC and IR**
Adhesion to the substrate (concrete) UNI EN 1015-12	**2.1 MPa**
Adhesion to substrate (concrete) UNI EN 1015-12 presence of traffic	**2.1 MPa**
Degree of water vapour transmission UNI EN 7783-2	**Sd=10.30 m Class II**
Free water permeability coefficient by capillarity UNI EN 1062-3	**w=0.064 kg-m-2h-0.5**
Permeability to carbon dioxide CO2 EN 1062-6	**Sd=59.7 m**
Hardness for Shore D penetration UNI EN ISO	**19.4 HSD (28 days)**
Workability (creep EN 13395-2)	**67 cm**
Density pycnometer method	**2.754 g/ml**
Fire reaction class UNI EN 13501-1	**A1**
Resistance to negative hydrostatic pressure UNI 8298-8	**No passage (2.5 bar)**

Physical characteristics

Package	**25 kg bag**
Consistency	**powder**
Mixture water	**28%**
Compressive strength EN 12190	**26 MPa**
Flexural strength EN 196/1	**6 MPa**
Maximum aggregate size:	**≤ 0.4 mm**
Theoretical consumption (per cm of thickness)	**16 kg/m²**
Temperature of use	**+5° C / +35° C**
Storage period	**12 months in unopened packages away from humidity**

Fields of application

T9 Osmo is recommended for waterproofing concrete or masonry surfaces, such as

- water tanks, swimming pools;
- lift shafts;
- foundation walls;
- external and internal walls of cellars and basements;
- water pipes.

Substrate preparation

The substrate to be waterproofed must be strong, rough, without cracks, clean and free of any loose parts, loose material and surface pollutants such as oil, grease and cement slurry. The substrate must therefore be prepared by appropriate mechanical cleaning techniques, such as high-pressure hydro-washing or sandblasting. If the structures to be treated with T9 Osmo are degraded, proceed with the removal of the damaged parts through the use of hydrodemolition or through manual or mechanical demolition. Regularise shrinkage cavities, gravel nests and other inhomogeneities with mortars from the Tradimalt Ripristino line. Wet the cement substrate to saturation; it must be damp at the time of application, but must not have films or puddles of water.

Product preparation

Mix with 28% clean water using a low-speed mixer or concrete mixer until a lump-free fluid consistency suitable for the application is achieved. Allow the mixture to rest for about 10 minutes, then stir without adding more water and apply.

T9 Osmo

Product application

Apply the product by brush, trowel or spray. Application requires up to 2-3 coats for a minimum final thickness of 2-3 mm. Ensure that the first coat penetrates well on a still damp substrate. Apply subsequent coats only when the previous one is sufficiently dry. Particular attention should be paid to the coating of corners, edges, chamfers and joints.

T9 Osmo can remain exposed or be protected by cement plaster and/or receive direct cement smoothing such as Tradimalt Rasoplus.

PLUS

Impermeability

The special fraction of active components contained in T9 Osmo reacts with the moisture/water and hydration by-products of the cement to form an insoluble crystalline complex that seals pores and capillaries formed during the hydration phase of the cement paste. In this way, the mortar, in its entire mass, is permanently protected from water penetration and chemical aggression from all directions. The development of crystalline formation is reactivated at a later time when new water or moisture penetration occurs.

Silica aggregates

T9 Osmo consists of silica sand grains. This aggregate has high hardness, low reactivity to acid attacks and, above all, a low water absorption. This quality results in a product that is easily workable even with small amounts of mixing water, offering less shrinkage and higher mechanical characteristics.

This gives greater durability to the work.

Specification item

Rigid thrust and counterthrust waterproofing of concrete surfaces, carried out by applying on a damp substrate, in several coats by brush, trowel or spray, ready-to-use osmotic cement mortar, for a final thickness of 3 mm such as Tradielastic T9 Osmo by Tradimalt S.p.A.

Certified according to EN 1504-2, coating (C), according to MC and IR principles, for concrete protection. Suitable for direct contact with drinking water according to Italian Ministerial Decree 174-2004.
Consumption 1.6 kg/m2 per mm of thickness.

Warnings

- Always soak the substrates until saturated before application.
- Do not apply on inconsistent or crumbling substrates, painted substrates, gypsum substrates;
- Do not apply if frost is expected within 24 hours of application;
- Do not apply on gypsum walls or ready-made gypsum-based plasters;
- Do not apply on frozen or overheated substrates;
- Do not add water, cement, aggregates or anything else;
- Do not apply for coat thicknesses > 2 mm per coat;
- Protect against rain, accidental runoff and frost for the first 24 hours after application;
- Protect the waterproofing from damage due to subsequent work;
- Before contact with drinking water, check that the product has completely hardened, then thoroughly wash the surfaces and remove any stagnating water before filling.
- Operating temperature between +5 °C and +35 °C.
- Store the product in its undamaged packaging and protected from moisture for up to 12 months.

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TRADIMALT S.p.A.

Via Nazionale 1 - VILLAFRANCA
TIRRENA 98049 MESSINA - ITALY

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ML 016/19

UNI EN 1504-2

T9 Osmo

Product for surface protection.
Coating

CO_2 permeability: 59.7 m
Capillary absorption and water permeability at atmospheric pressure: 0.064 Kg/(m^2xh0.5)
Permeability to water vapour: 10.30 m
Adhesion to the concrete substrate: 2.1 MPa
Hazardous substances: according to section 5.4

FORTE E CHIARO

This is Tradimalt's way of communicating, in its information and technical-commercial material, the composition of each product and some of the product's key features. Therefore, the focus is on supply chain transparency, not required by any relevant regulation but which Tradimalt nevertheless intends to offer to its customers in order to emphasise the quality of the raw materials, and thus of the product, as well as the safety that the company intends to demonstrate with regard to formulations.

Raw materials contained in the product

Selected raw materials:

- Siliceous aggregates (0 to 0.3 mm) with high hardness and low water absorption;
- Cements, Portland cement 52.5 R type I from Italian cement factories (>35%);