

NOSSIM

Mineral admixture to produce stabilised Cleancrete Nossim: a cement-free, stabilised clay-based concrete

Oxcrete® Nossim is a mineral admixture that is used to produce stabilised clay-based concrete. The admixture allows a simple handling of clay-based, cement-free concrete – Cleancrete. Oxcrete® Nossim contributes to a strength development which is independent of the drying process of the clayey material. Due to the stabilisation of the clayey matrix by Oxcrete® Nossim, the water resistance is improved depending on the dosage.

Oxcrete® Nossim

Oxcrete® Nossim is a blend of mineral powders, including a dispersant and a stabiliser. The dispersant deflocculates and re-arranges clay particles, while the reaction of the stabiliser promotes the agglomeration and hardening of the clayey materials. The additive is classified as non-toxic and non-hazardous according to the Globally Harmonized System (GHS) and has been approved under the Chemicals Ordinance (ChemO) in Switzerland.

Cleancrete Nossim

Oxara clay-based Cleancrete Nossim is a sustainable and resource-saving alternative to cement-based concrete, in applications where high compressive strength is not required, yet an initial strength-development and water stability are critical. Higher Oxcrete® Nossim dosage improves water stability and initial strength, but reduces humidity regulation and recyclability, necessitating careful dosage selection for optimal performance.

Dosage

20-160 kg Oxcrete® / m³ Cleancrete (1-8% of the final mass)*

*Dosages vary depending on product requirement. Please contact tech@oxara.ch for more information.

Cleancrete Nossim – Properties

Properties	Unit	Value	Norm Reference / Test type
Consistency class	[-]	F2-F4	SN EN 12350-5
Spread flow	[mm]	350-550	SN EN 12350-5
Open time	[h]	2	
Density	[kg/m ³]	1900-2170	
Demolding time	[day]	2	
Compressive strength	[MPa]	>2	Adapted from SN EN 12390-3
Shrinkage	[%]	1-2	

Environmental Data¹

Functional unit: kg of Cleancrete Nossim (Dosage: 80 kg Oxacrete® Nossim / m³)

Properties	Unit	Value
Global Warming Potential (GWP)	[kg CO ₂ -eq]	0.016
Environmental Impact Score	[UBP]	62
Energy demand, grey energy	[kWh oil-eq]	0.082

¹Lifecycle assessment data was calculated as part of the ZeroStrat Project, which was conducted in collaboration with ETH Zurich and commissioned by the Swiss Federal Office of Energy (SFOE).

Application possibilities:

- Internal non-load bearing walls
- Screeds
- Furniture
- Cast blocks
- Composite application with wood
- Particularly recommended for applications where formwork must be removed quickly, or for tall cast elements

Requirements & Recommendations:

- Protection against rain and capillary rise is recommended for exterior use
- A minimum ambient temperature of 15°C is recommended during the process from casting to demolding

The product is available:

- In 20 kg bags
- Other delivery options are available too, please contact tech@oxara.ch for more information



Storage:

- Store in a dry area
- Keep away from direct sunlight
- Maintain ambient temperatures (10°C to 30°C / 50°F to 86°F)
- Protect from weather elements

Health and safety information for the handling with Oxacrete® Nossim Admixture:
Avoid dust formation. Use in places with adequate ventilation. Avoid breathing dust. Use personal protective equipment. Consult the Safety Data Sheet for exposure limits. Dispose of contents/container in accordance with local regulations.