



**Buzzi Unicem Next** is the name of a family of hydraulic binders based on sulfoaluminate clinker, which is obtained by burning a mixture of bauxite, gypsum and limestone at a temperature of approximately 1,350°C and subsequently ground.

**Next binder SL05NF** is formulated with the optimal proportions of Next clinker, anhydride, Portland cement and set-regulating admixtures to obtain a ready-to-use product characterized by low shrinkage and rapid strength development after a short curing time.

**Next binder SL05NF** confers exceptional durability, low permeability to aggressive substances and high resistance to sulfates to the products in which it is used.

**Next binder SL05NF** is a high-performance binder designed for producing precast elements of all kinds at low temperatures.

## Buzzi Unicem

### Next binder SL05NF Hydraulic binder based on sulfoaluminate clinker



#### Properties

##### Main chemical ingredients

CaO	57 – 63%
Al <sub>2</sub> O <sub>3</sub>	11 – 14%
SiO <sub>2</sub>	11 – 13%
SO <sub>3</sub>	9 – 12%
Cl <sup>-</sup>	< 0,1%
Cr VI	< 2,0 ppm

##### Main ingredients of the hydraulic binder

Clinker CSA	(33 ± 5)%
CaSO <sub>4</sub>	(10 ± 5)%
CEM I 52,5 R	(55 ± 5)%

##### Calcium sulfoaluminate content

C <sub>4</sub> A <sub>3</sub> S̄	(14 ± 5)%
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**Density** 3.000 kg/m<sup>3</sup>

**Blaine specific surface area** > 4.700 cm<sup>2</sup>/g  
[UNI EN 196-6]

**Color** light grey

**Initial set time** [UNI EN 196/3] > 20 min

##### Average compressive strength

In compliance with UNI EN 196-1

<b>Time</b>	<b>[ MPa ]</b>
8 hours	> 15
28 days	> 42,5



## Applications

**Next binder** SL05NF is a high-performance, ready-to-use binder designed for producing precast structural elements in precompressed reinforced concrete (PRC) that ensures formwork removal times comparable to those obtained at high temperatures with class 52.5R Portland cement, including in winter, without having to use accelerated steam curing.

- Beams
- Tiles
- Ribbed slabs
- Precast components of any color
- Precast components highly resistant to sulfates and freezing-thawing cycles

**Next binder** SL05NF can also be used to produce precast structural and non-structural elements in an earth-moist consistency and which must be handled quickly, including at low temperatures.

- Curbs
- Pipes
- Extruded floors
- Blocks
- Elements for culverts
- Precast components of any color

The **Buzzi Unicem Next** user manual contains several examples of mixtures for the applications listed above.

## CSA-based ternary product line

### Next binder SL05

Calcium sulfoaluminate binder designed for use in the precast, premix and readymix concrete sectors where rapid strength development, low shrinkage and rapid drying properties are necessary.

### Next binder SL05NF

Calcium sulfoaluminate binder specifically designed for producing precast elements of all kinds at low temperatures.

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## Warnings

- **Next binder** SL05NF does not contain expansive or shrinkage reducing admixtures (SRA).
- The performances of formulations made with **Next binder** SL05NF can be customized by varying the amounts of the admixtures typically used in concrete (superplasticizers, accelerators, retarders, viscosifiers, aerating agents, etc.).
- **Next binder** SL05NF is supplied in bulk, 25 kg bags or bigbags.
- Please see the **Buzzi Unicem Next** user manual for further information.
- The safety sheet can be downloaded from the website: [www.buzziunicem.it](http://www.buzziunicem.it).



### Environmental sustainability

Because of the low carbon and calcium content in the raw materials, the production cycle of Next formulations reduces the CO<sub>2</sub> emissions into the atmosphere.

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**Nota:** *The instructions provided above are the result of our best experience and are for indicative purposes only. We cannot be held liable for any defect or damaged caused by the improper use of the product or if it is not used under the recommended conditions. Our Technical Assistance Department is available to provide further advice on the correct use of the product and to conduct technical tests.*

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