



# Reference Cement

## METHOD OF CONTROL AND CALIBRATION

### CHEMICAL

### GRANULOMETRY (Alpine et Laser)

#### USAGE

This standard cement allows the control of measuring devices in chemistry and particle size of cement according to the test standard CEN EN 196-6.

For the other standards, these reference cements are very useful for regular checks to identify a drift.

#### REFERENCE CEMENT CHARACTERISTICS

European reference materials were created under the technical coordination of France-Ciments (formerly ATILH).

All cements used as references comply with the standard CEN EN 197-1 and can be used in accordance with the test standard CEN EN 196-6.

The analyses and statistical consultations that led to the certification of these reference materials for cements were carried out by Alain Bonnet, Head of the Statistical Engineering Division of France-Ciments, on the basis of inter-laboratory tests involving 170 laboratories, including certified European laboratories whose participation in this inter-laboratory is an integral part of their COFRAC certification.

An Inter laboratory testing campaign is organized each year by France-Ciments formerly ATILH. Participate in particular: the laboratories of the Cement Industry in France, in Europe and more widely in the world, the laboratories of cement users and research and control centres in the field of construction materials.

Should you want to participate to this yearly interlaboratory round robin test organized by France-Ciments, please contact [a.bonnet@france-ciments.fr](mailto:a.bonnet@france-ciments.fr)

This participation is mandatory for laboratories accredited by COFRAC for tests on cement. The tests are carried out according to standard methods where they exist and according to current and traditional methods where they do not.

#### Statistical analysis

Outlier removal is performed at the 98% level by the Student test. Reiteration is set at this threshold, to keep only the values related to the "Normal or Gaussian" distribution and fully defined by the two parameters: mean and standard deviation. The coefficient of variation symbolized by 'V' is the ratio between standard deviation 'and average 'X'

The certificate of analysis was carried out and checked by the offices of France-Ciments in Clichy.

**PACKAGING**

The reference cement is offered in 40g bottles.

Each cement is delivered with its analysis certificate

**Product Portfolio chemistry and particle size of cement**

Glass Bottle of 40g

Reference	Packaging	Cement Type
SN4	Glass Bottle of 40g	Portland Cement Cem I 52,5
SN5	Glass Bottle of 40g	Portland Cement Cem I 52,5
SN6	Glass Bottle of 40g	Portland Cement Cem I 52,5
SN200	Glass Bottle of 40g	Composite Cement Fly Ash
SN201	Glass Bottle of 40g	Composite Cement Slag
SN202	Glass Bottle of 40g	Composite Cement Pozzolana / Slag
SN203	Glass Bottle of 40g	Composite Cement Limestone
SN204	Glass Bottle of 40g	Composite Cement Limestone
SN205	Glass Bottle of 40g	Composite Cement Limestone