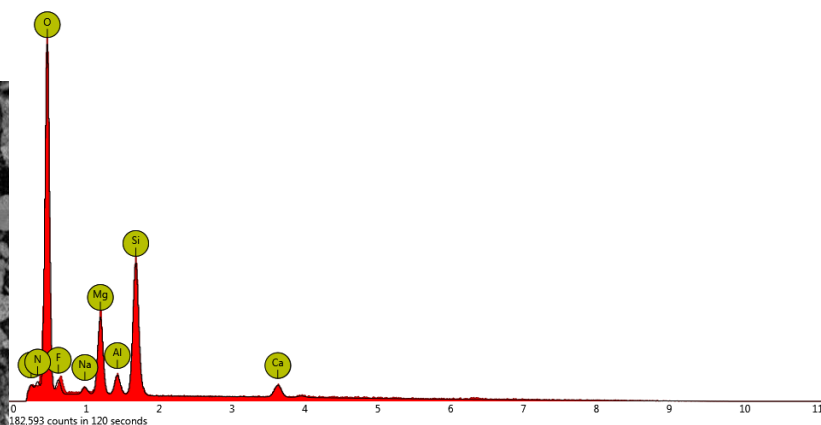
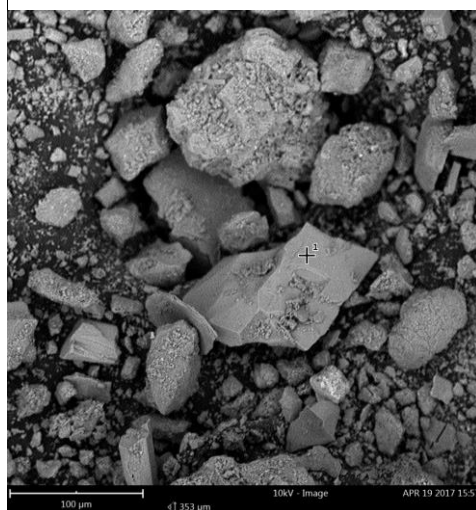


Customer	FAHMY FURNITURE
Sample ID	WASHED SAND COD.003 – comp565
Test	AGGREGATES CHARACTERIZATION
Sample (g)	300
Lab address	PF Lab Services – Simbario (VV) – ITALY

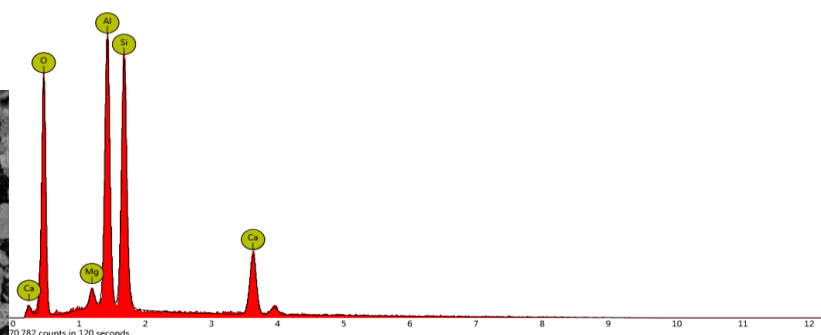
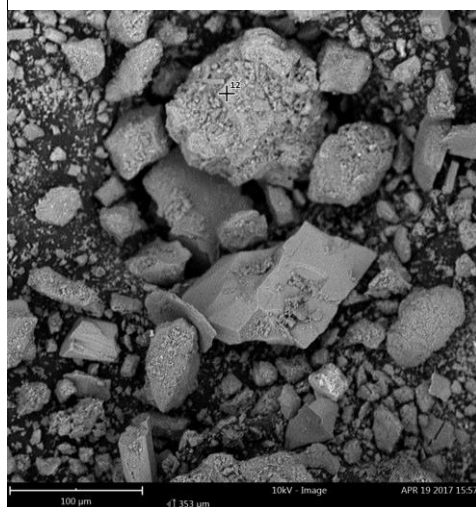
Chemical Analysis: A scanning electron microscopy (SEM) is used for the chemical analysis

## 1. spot



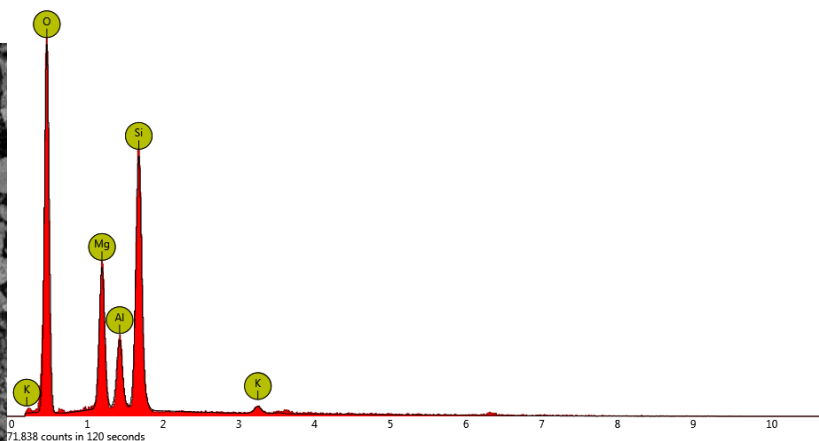
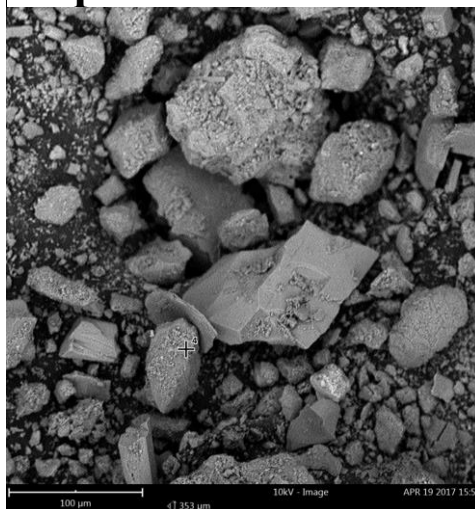
Element Symbol	Element Name	Concentration	Error
O	Oxygen	62.1	0.5
Si	Silicon	13.1	0.7
Mg	Magnesium	10.5	1.0
Al	Aluminium	2.2	2.2
Ca	Calcium	3.5	2.4
F	Fluorine	5.5	3.0
N	Nitrogen	1.7	3.4
Na	Sodium	1.4	4.8

## 12. spot



Element Symbol	Element Name	Concentration	Error
Al	Aluminium	19.8	0.9
Si	Silicon	18.9	0.9
O	Oxygen	47.0	1.1
Ca	Calcium	12.7	1.7
Mg	Magnesium	1.6	4.9

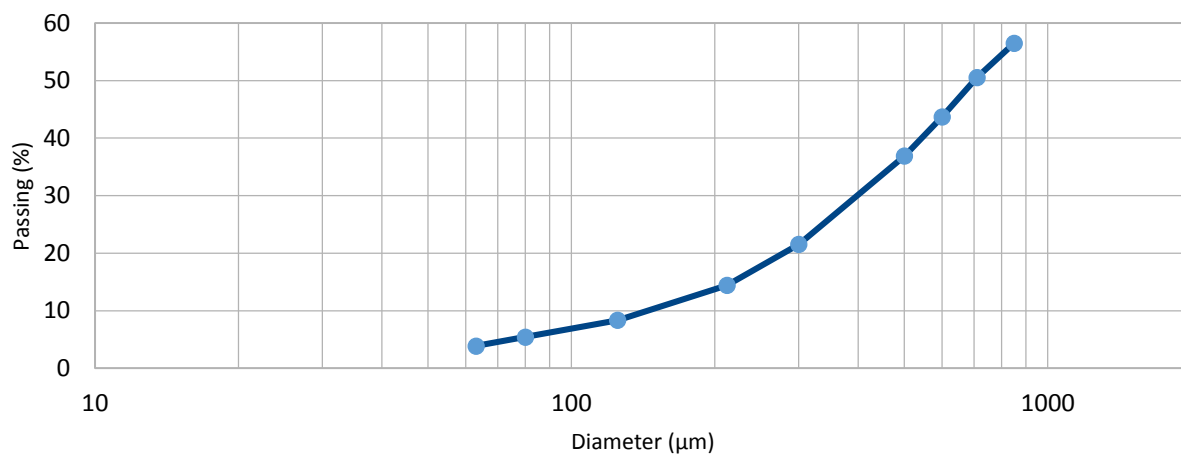
#### 4. spot



Element Symbol	Element Name	Concentration	Error
O	Oxygen	56.6	0.8
Si	Silicon	21.2	0.8
Mg	Magnesium	14.5	1.2
Al	Aluminium	6.3	1.8
K	Potassium	1.4	5.7

#### Particles size distribution

Sieves mesh mall S Steel I.S.O. 3310 (UNI EN 933-2) and electric sieve shaker with timer (UNI EN 932-5 ISO 3310-1) were used to lead the analysis.



#### Particles size analysis

Diameter Sieve	Passing %
[μm]	-
4000	98,00
850	56,51
710	50,52
600	43,70

500	36,91
300	21,53
212	14,42
125	8,34
80	5,43
63	3,88

#### NOTE

Particles size analysis shows that the sand has a particles distribution between 4000  $\mu\text{m}$  and 100  $\mu\text{m}$ . The sample of sand does not have filler (powder with particles size below 80  $\mu\text{m}$ ).

In order to use this sand in the Personal Factory products it has to be sieve with a 800 $\mu\text{m}$  sieve. The quantity of sand below 800  $\mu\text{m}$  is about 50%, so it is not advantageous to use this sand.

DATE

28/04/2017

PERSONAL FACTORY REFERENT

Ing. Maria Grazia Spagnolo