



Sand Matrix® Technical data sheet

Officina dell'Ambiente Spa

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IDENTIFICATION OF THE PRODUCT

Name	Sand Matrix®
Producer	Officina dell'Ambiente Spa –Lomello Plant (PV) and Conselice Plant (RA)
Type of product	Sand Matrix® is a secondary raw material used in the production of cement, brick blocks, premixed mortars, cement products, cement-bound mixtures and bituminous conglomerates.
Origin	recovery of bottom ash from the incineration of municipal solid waste.
Appearance	a grey granular material.
Grain size	generally marketed in the grain sizes 0-2 mm, 0-4 mm and 2-4 mm.

COMPOSITION: similar to a natural sand, consisting mostly of clay and moderate amounts of lime, with the quality and quantity of macro-components remaining largely stable.

Average chemical composition %		Mineralogical composition and average diffraction (Referred to dry material and expressed as oxides)	
LOI	< 10	Anorhite	Ca(Al ₂ Si ₂ O ₈)
SiO ₂	30-45	Ghelenite	Ca ₂ Al ₂ SiO ₇
Al ₂ O ₃	5-15	Quartz	SiO ₂
Fe ₂ O ₃	5-15	Lime and Calcite	CaO e CaCO ₃
CaO	15-25	Ferrous and ferric oxides	FeO e Fe ₂ O ₃
MgO	2-3	Metallic Aluminium	Al
SO ₃	0,5-2		
Cl	0,2-0,7		
Alcali	4-5		

PRODUCTION PROCESS: Sand Matrix® is obtained through specific treatment of waste of inorganic origin, consisting of bottom ash from the incineration of municipal solid waste. After undergoing various crushing, comminution, screening and iron and metal removal processes, the product takes on the appearance of a sandy material.

Environmental advantages: Sand Matrix® is a secondary raw material that limits the mining works for of natural raw materials and avoids the disposal of special waste in landfills.