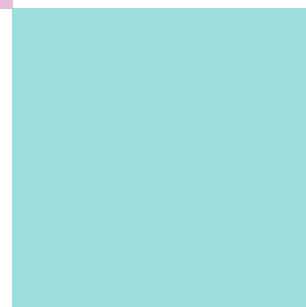
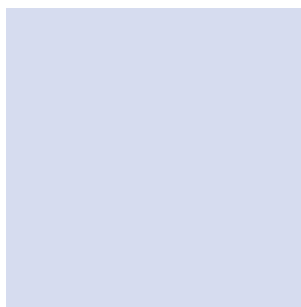
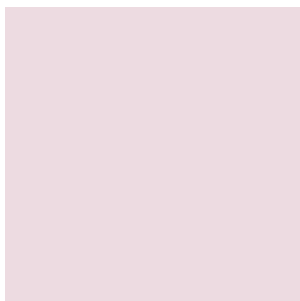
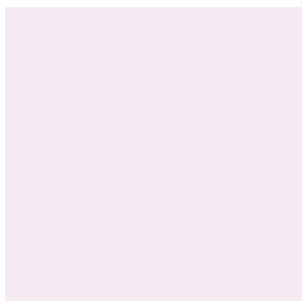
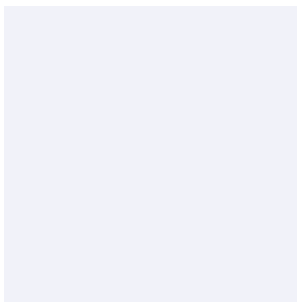




GYPSOS



 **FLUORSID**
LIFE, RESPECT AND TRANSFORMATION SINCE 1969



GYPSOS

**CERTIFIED, ECO FRIENDLY ANHYDRITE
BASED GYPSUM EXTRAORDINARILY
SUITABLE FOR BUILDING AND
CEMENT INDUSTRIES.**

Its physical-mechanical features, easy to adjust according to specific needs, the production process and the laying technology, give best performances in the creation of products with a high surface/volume ratio.



GYPSOS
is available
in 3 different
qualities

GRANULAR

MILLED

RAW



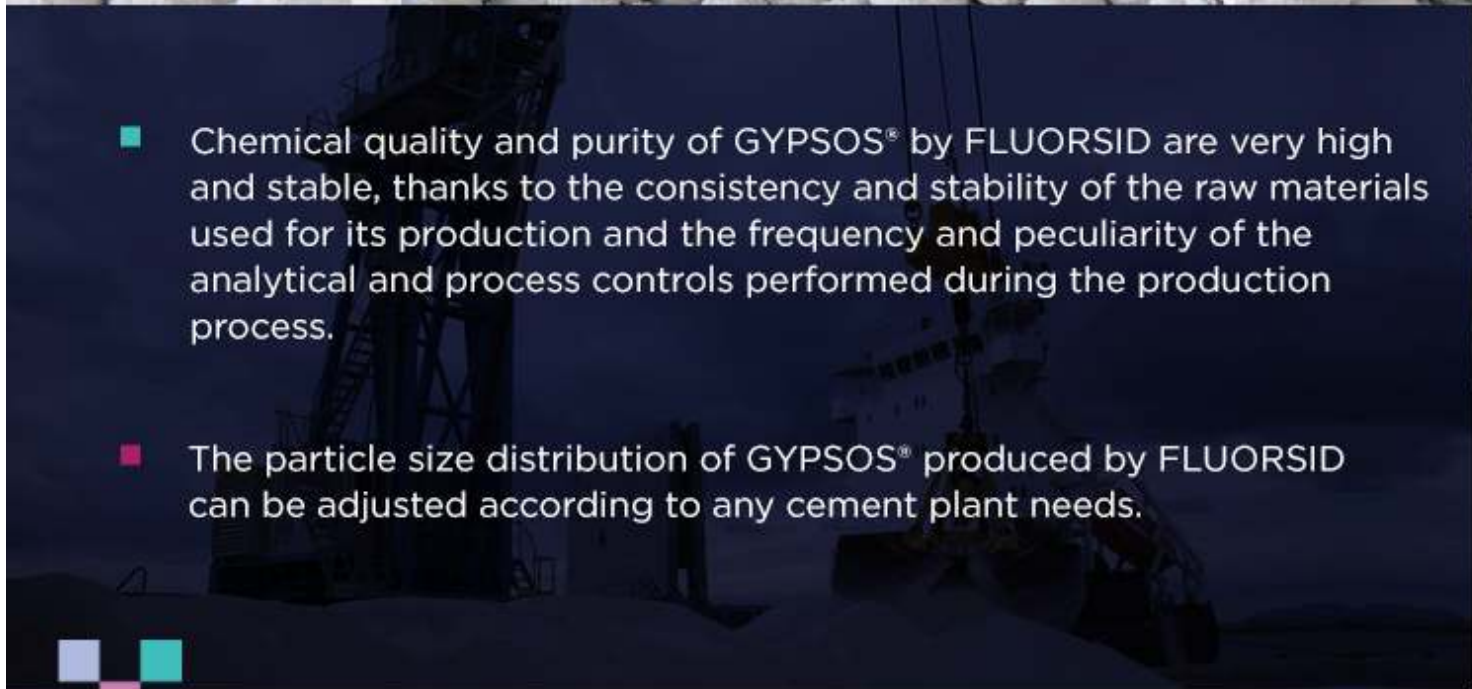
GYPSOS for Cement industry

- GYPSOS® by FLUORSID is an extraordinary alternative to natural gypsum, FGD gypsum and phosphogypsum. It is used in the cement industry as an additive to regulate setting time.



- Due to its extremely high anhydrite content and the minimum concentration of impurities, the quantity of SO_3 per tonne of material is the highest compared to the other natural or chemical gypsums. Its use therefore allows a reduction in specific consumption of calcium sulphate based raw materials used in the production of cement.

- Chemical quality and purity of GYPSOS® by FLUORSID are very high and stable, thanks to the consistency and stability of the raw materials used for its production and the frequency and peculiarity of the analytical and process controls performed during the production process.
- The particle size distribution of GYPSOS® produced by FLUORSID can be adjusted according to any cement plant needs.





GYPSOS for Building industry

- GYPSOS® is widely used in the building industry for the production of self-levelling screeds.
- GYPSOS® is an excellent alternative to cement in the industrial production process across most non-structural concretes and mortars.
- GYPSOS® is commonly used as a binder in indoor applications as plasters, blocks and aerated concrete.

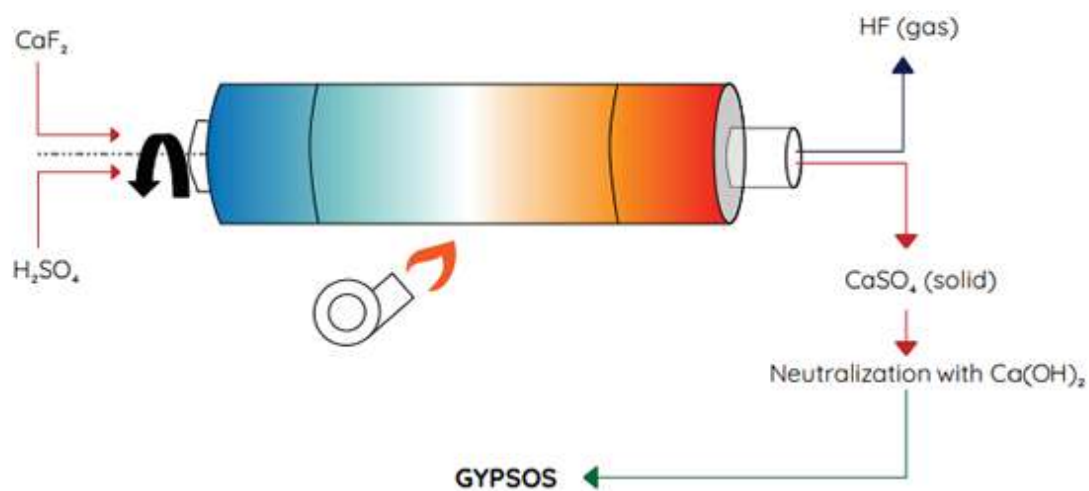
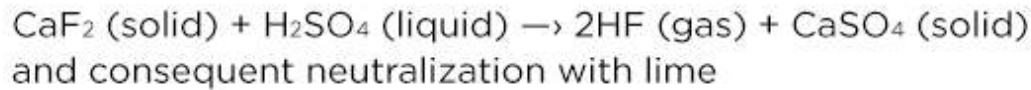




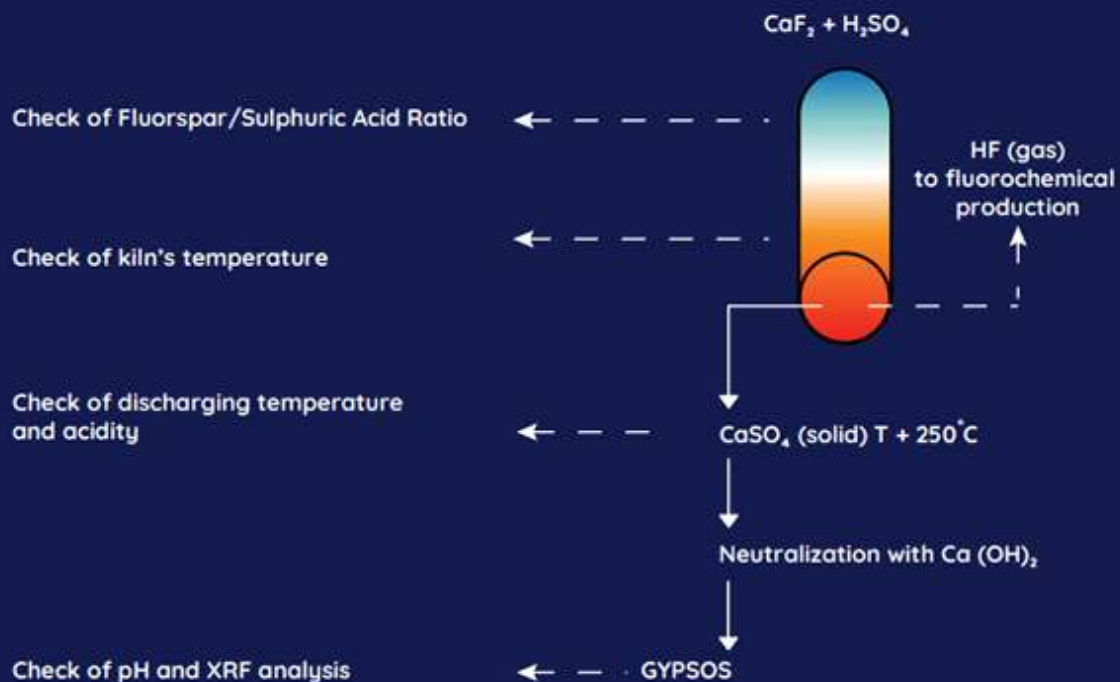
RAW GYPSOS

THE PRODUCTION PROCESS

GYPSOS[®] is Anhydrite (CaSO_4) obtained from the reaction of dried acid grade Fluorspar (CaF_2 97%) and Sulphuric Acid (H_2SO_4) during the production of Hydrogen Fluoride (HF):



GYPSOS: THE PROCESS CONTROL





RAW GYPSOS

PARAMETER	UNIT	GUARANTEED VALUE		TYPICAL VALUE	ANALYTICAL METHOD
		MIN	MAX		
CaSO ₄ *	%	93		97	Calculation
SO ₃ *	%	54		57	MI 07
CaF ₂	%		3	2	MI 07
SiO ₂	%		0,8	0,2	MI 07
K ₂ O	%		0,2	0,010	MI 07
MgO	%		0,5	0,10	MI 07
Fe ₂ O ₃	%		0,5	0,10	MI 07
Al ₂ O ₃	%		0,5	0,15	MI 07
Ca(OH) ₂	%		<1	0,9	MI 04
H ₂ O 110° C	%		2	1	MI 02
H ₂ O 360° C	%		2	1	MI 03
pH	%	10		11	Potentiometric

* Data based on sample treated at 360° C after dried at 45C

PHYSICAL PROPERTIES	UNIT	TYPICAL VALUE	ANALYTICAL METHOD
Particle Size distribution			Dry Sieve Analysis
< 30 mm	%	100	
< 5 mm	%	85	



MILLED GYPSOS

From
Raw GYPSOS...



To
Milled GYPSOS...





MILLED GYPSOS

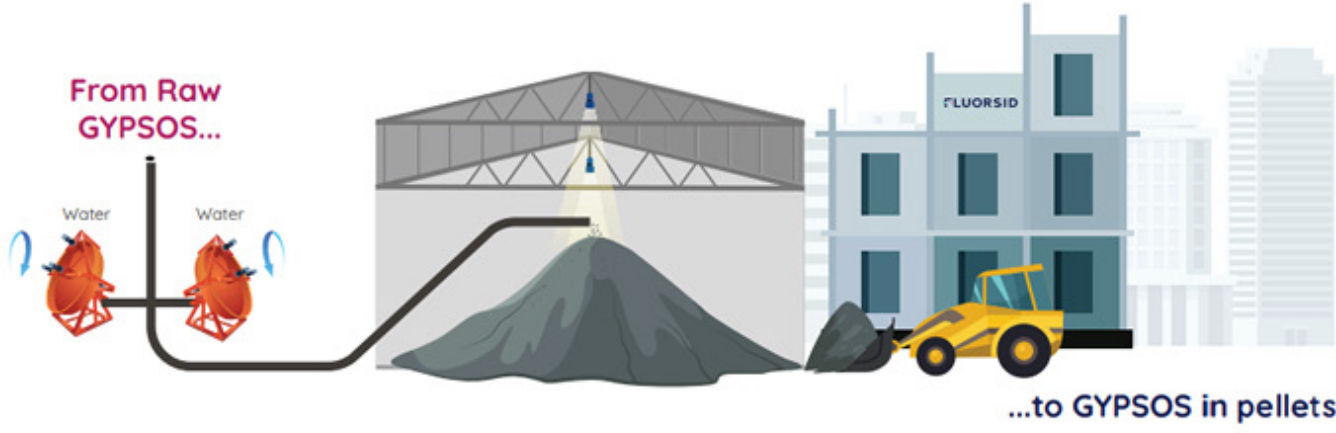
PARAMETER	M.U.	GUARANTEED VALUE		TYPICAL VALUE	ANALYTICAL METHOD
		MIN	MAX		
CaSO ₄ *	%	93		97	Calculation
SO ₃ *	%	54		57	MI 07
CaF ₂	%		3	2	MI 07
SiO ₂	%		0,8	0,2	MI 07
K ₂ O	%		0,2	0,010	MI 07
MgO	%		0,5	0,10	MI 07
Fe ₂ O ₃	%		0,5	0,10	MI 07
Al ₂ O ₃	%		0,5	0,15	MI 07
Ca(OH) ₂	%		< 1	0,9	MI 04
H ₂ O 110 °C	%		2	1	MI 02
H ₂ O 360 °C	%		2	1	MI 03
pH	%	10		11	Potentiometric

* Data based on sample treated at 360° C after dried at 45C

PHYSICAL PROPERTIES	M.U.	GUARANTEED VALUE		TYPICAL VALUE	ANALYTICAL METHOD
Particle Size distribution	%	MIN	MAX		Dry Sieve Analysis
> 0,425	%		5	2	
> 0,090	%	15	25	16	
< 0,090	%	75	85	84	
Flow Test	CM	MIN	MAX		Test Gyps-Union
at 1 min		24	28		
at 45 min		20	24		



GRANULAR GYPSOS





GRANULAR GYPSOS

PARAMETER	UNIT	GUARANTEED VALUE		TYPICAL VALUE	ANALYTICAL METHOD
		MIN	MAX		
CaSO ₄ *	%	93		97	Calculation
SO ₃ *	%	54		57	XRF
CaF ₂	%		3	2	XRF
SiO ₂	%		0,8	0,2	XRF
K ₂ O	%		0,2	0,010	XRF
MgO	%		0,5	0,10	XRF
Fe ₂ O ₃	%		0,5	0,10	XRF
Al ₂ O ₃	%		0,5	0,15	XRF
Ca(OH) ₂	%		< 1	0,9	Titration
H ₂ O 110° C	%		10	5	Thermogravimetric
H ₂ O 360° C	%		10	5	Thermogravimetric
pH		10		11	Potentiometric

* Data based on sample treated at 360° C after dried at 45C

Standard particle size distribution 10 - 20 mm

Wide availability of customization

ENVIRONMENT & SUSTAINABILITY

We strongly want to ensure our industrial activity within a global perspective. That's why our relentless commitment in R&D is aimed to embrace the principles of the circular economy model and environmental sustainability.



GYPSOS® allows the producers to significantly reduce the presence of anhydrite mines and quarries avoiding their local environmental impact and global CO₂ reduction.





Fluorsid produces more than 500.000 MT/Yr of GYPSOS across its European Plants



GYPSOS® RAW is shipped from Cagliari (Italy) and Odda (Norway) ports by conventional Vessels. For small lots to the local markets, GYPSOS RAW can also be delivered by bulk trucks.



GYPSOS® MILLED is usually delivered by silo-trucks of about 30MT each. For smaller lots and testing purposes the product may be provided in Big Bags too. Treviglio (Bergamo) plant production is strategic for the North Italian market, while the South Italian market is served from Cagliari plant.



GYPSOS® GRANULAR is delivered by bulk trucks to the Italian market and by conventional Vessels (up to 50K MT) to the international markets from Cagliari Port.



ESTABLISHED IN
1969

FULL INTEGRATED
**FLUORINE
VALUE CHAIN**

150+ CLIENTS
WORLDWIDE

WHO WE ARE

GYPSOS is a product of Fluorsid, established in 1969 in Sardinia and through its different plants and mines across Italy, Norway and UK is covering the entire fluorine value chain.

From the extraction of fluorspar to its derivative products, FLUORSID is the fluorspar's major buyer and the largest producer of HF and aluminium fluoride of the western world.

FLUORSID is highly committed in pursuing quality and respect for the environment, through the brand GYPSOS® is also one of the world's foremost producers of anhydrite for the building industry, the largest Italian supplier of synthetic gypsum to the cement industry and an important producer of sulphuric acid.

The company wants to give its contribution to a world that looks towards the future with a better quality of life for everyone. Hence it is doing it by creating chemistry for the partners and making the best use of available resources.

As a global player, FLUORSID has a responsibility to manage its supply chain carefully. Its partnerships with suppliers are based on mutual value creation, as well as a reliable supply of raw materials, technical goods and services at fair prices.

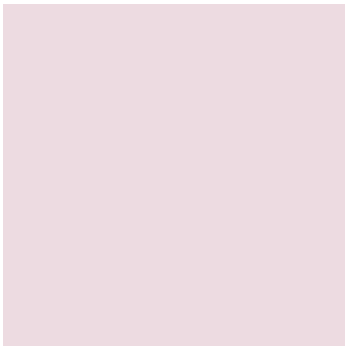
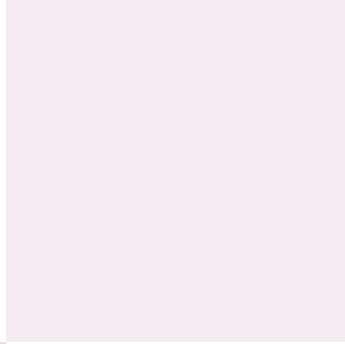
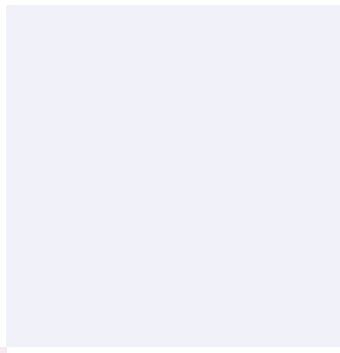
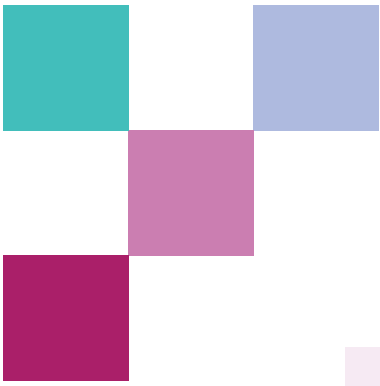
FLUORSID exports over 80% of it's products across dozens of countries worldwide.



THE MISSION

Adopting its core values - integrity, ambition and perseverance - together with an ethical business approach, FLUORSID is committed to continued growth by ensuring efficiency, in order to seize global market opportunities. the company strongly believes in respect for all work dynamics while aims to the highest result. At every level.





e-mail: info@fluorsid.com

website: www.fluorsid.com

linkedin: <https://it.linkedin.com/company/fluorsid>

ISO 9001: 2015
ISO 14001: 2015
ISO 37001: 2016
OHSAS 18001: 2007
UNI 10617:2012



FLUORSID
LIFE, RESPECT AND TRANSFORMATION SINCE 1969

The contents of this document are property of Fluorsid SpA and it shall neither be reproduced, copied, disclosed to others, nor used for any purpose other than that for which is specifically furnished, without the prior written consent of Fluorsid SpA.

