

## INTERVIEW

Interview

# MINERALI INDUSTRIALI: 100 years of experience in the mining processing sector

A recent interview with Minerali Industriali gave us the chance to find out more in detail about this group and the important work it carries out for the glass sector.

**G** LASS MACHINERY  
PLANTS &  
ACCESSORIES  
(GMP&A):

Could you please give us an overview of your Group?

*Minerali Industriali (MI):* Minerali Industriali (MI) is an independent mining company, founded about 40 years ago, owned and managed by two Italian families. MI has around 620 employees, half of them in



Italy, as well as hundreds of sub-contractors working in non-strategic roles.

In 2020, MI produced more than 3.5 million tons of raw materials for a total turnover of about EUR 132 million.

MI's mission is to be a reference company in the:

- extraction, treatment and sale of raw materials destined to our main markets: glass, ceramics, engineered stone, paint& coatings and others; recycling and recovery of non-dangerous industrial waste;
- production of innovative products;
- geological and mining survey, design and implementation of plants for the mining sector and for the recovery of non-dangerous industrial waste.

Our targets remain to:

- work safely;
- respect the environment;
- guarantee high quality of our products;
- maintain a strong long-term relationship with our customers, contractors and more in general, with our stakeholders;
- have a sustainable development approach.

South America (three in Mexico, Colombia, Brazil and Guatemala). We are present globally in 11 countries with 21 mines and 26 operating sites.

Our main markets are: Glass 40%, Ceramics 37% (30% tiles + 7% sanitaryware), other markets 15% (E-Stone, Waste management, P&C), 8% from the sales of plants and machinery (MIE).

Sales are: 86% Europe, 11% America, 3% Africa with more than 800 customers, while we have business activities in 33 countries.

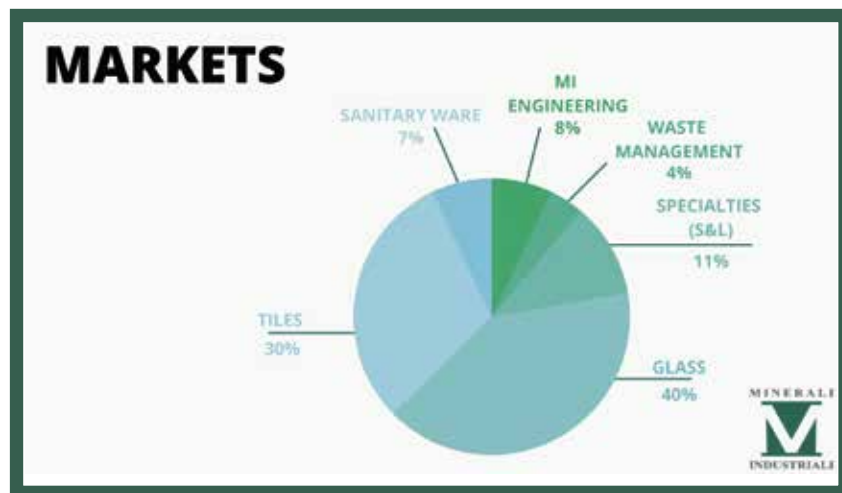
**MI:** Minerali Industriali supplied more than 1.2 Mt of raw materials to the glass market in 2020.

A huge range of Sands (Silica and Feldspathic Sands) with Fe<sub>2</sub>O<sub>3</sub> content between 80 and 600 ppm can be supplied to Float and Container manufacturers. Feldspar and Recycled Glass Sand complete the range of products.

Minerali Industriali can also supply milled silica for fiber glass production and high quality silica sand to silicate producers.

In detail:

1 LQS (Lochaline Scotland) is an underground mine where



Minerali Industriali owns five companies in Italy (13 industrial sites and two offices), three in Europe (Czech Rep, Bulgaria and UK), one in Turkey, two in Africa (Tunisia and Egypt) and six in

**GMP&A:** Concerning the Glass Market, could you please indicate more in detail the raw materials that you can provide and the location of your production sites?



we are able to produce about 140.000 t/y of top quality silica sand with Fe<sub>2</sub>O<sub>3</sub> content from 90 to 200 ppm (different grades). We are located just in front of a fiord and on the mine



## INTERVIEW

exit we have the washing plant, the warehouse and the dock for ships loading. We supply float glass producers and containers glass producers.

2 SASIL is the oldest plant of our Group and it is also the most complicated and complete one. We can perform many different types of mineral treatment, such as: Washing, Grinding, Flotation, Magnetic Separation (wet and dry), Acid Leaching, drying optical sorting and micronization. An important water treatment plant complete the installation. We produce there feldspatic sands with  $Al_2O_3$  between 6 to 11% and  $Fe_2O_3$  from 600 ppm to 0.3%. In this plant we also produce Glassy Sand, while a micronized line can produce quartz powder for fiber glass application.

plants in Italy use our sand. The final products are transported by trucks to Sousse port where we own a 20,000 ton warehouse and from this port we are able to load ships destined for our Italian warehouses or directly to our customers.

4 MSS: in Sardinia we own a large open-pit feldspatic sand mine and a fully equipped washing plant. We produce final products destined to glass and ceramics. We supply about 220,000 t/y of sands with  $Fe_2O_3$  from 200 ppm to 380 ppm and  $Al_2O_3$  from 3.1 to 4.6% for the glass sector. Our products are used by the most important Italian container glass producers.

Our product range also includes feldspar coming from our Verbania quarry ( $Fe_2O_3$  0.16% and 0.35% and  $Al_2O_3$  around 13.5%), as well as top

to our customers.

About 100,000 tons of sand are always stocked in our warehouses to be able to supply customers also in case of unexpected events (e.g. strikes, bad weather conditions, mine troubles, pandemic etc.).

**GMP&A:** Are you involved in Glass Recycling?

**MI:** SASIL has always been engaged in research and development concerning the treatment of materials typically considered waste, for their enhancement and reuse in various industrial sectors.

SASIL currently processes around 410,000 tons/year of raw materials, of which 260,000 tons/year (63.5%) are represented by waste materials and only 150,000 tons/year (36.5%) natural raw materials. In particular, processes have been developed on glass coming from primary recovery units to be able to recycle 95% of the collected product. At present, glass cullet represents the core business of SASIL production.

In a circular economy and process sustainability vision, this process has led to a triple advantage:

- reduction of energy consumption;
- drastic reduction of the material destined to disposal;
- Important saving of natural raw materials and therefore less environmental impact due to mining activities.

In the last years the R&D department has been working in



3 MIT: in Tunisia we own an open pit mine and a washing plant in the Kairouan area. We are able to produce about 600 kton/y of silica sand with different grades with  $Fe_2O_3$  content from 250 ppm up to 600 ppm. The mine and the plant have been operational for more than 15 years, while the washing plant has been up-graded and enlarged during the last years. A new magnetic separation line was installed last year. We can guarantee the PSD required by the float glass producers and, in fact, several float glass

quality silica sand ( $Fe_2O_3$  = 85 ppm) that we import from one of our partners based in Portugal.

Last but not least, we have a dedicated Logistic Team involved in the Service that Minerali Industriali can provide to this market. MI owns a company (Seagull) operating in Oristano Port and has a participation in a Logistic and Port Service Company based in Livorno.

Long term contracts with players operating in the main Italian ports and in some UK ports, are, in MI's opinion, essential to be able to provide complete service

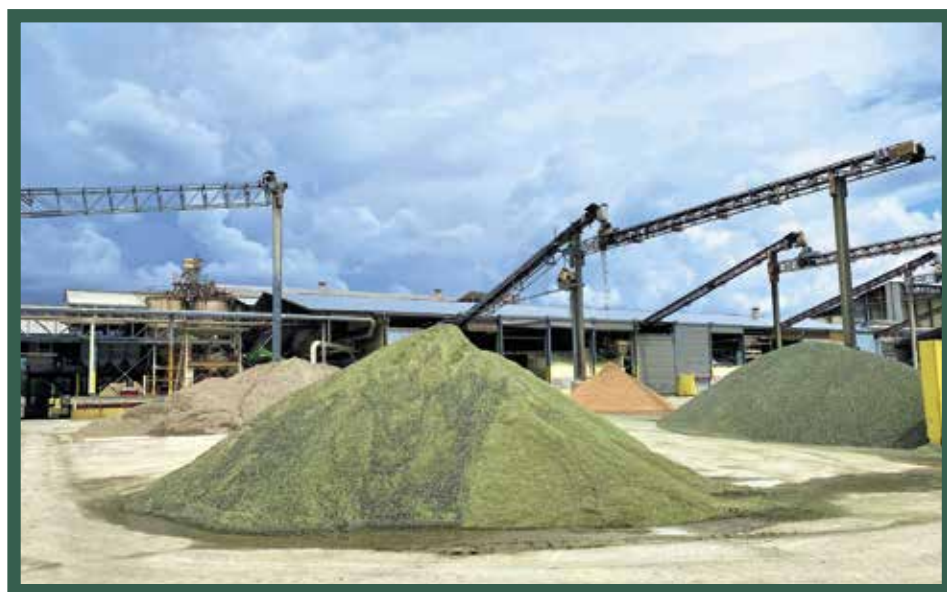




for the sands and wastes, are you selling your 'technology' or it is only for 'internal use'?

**MI:** Minerali Industriali has recently created a specific branch named MIE aimed at supporting new mining projects (for industrial minerals), as well as to provide turnkey plants to our partners.

Our slogan is 'Solution 360: from mine to final products', which summarizes the service that MIE can provide. ■



order to recycle 'special glass' still largely destined to disposal, for example glass light bulbs, old television screens or solar panels at the end of their life.

The results obtained have confirmed that these special types of glass can also be recycled and Sasil is, in fact, processing about 8,000 tons/year destined to the B&C market.

**GMP&A:** We have understood that your Group has invested a lot in mineral process and you have developed some specific treatment

## ENGINEERING SOLUTION 360: FROM MINE TO FINAL PRODUCTS

100 years of experience in the mining processing sector make Minerali Industriali the ideal partner for the treatment of non-metallic ores.

With treatment plants all over the world, Minerali Industriali draws upon its know-how and experience to offer streamlined solutions based on its experience as an industrial mineral producer rather than a mining machinery producer alone.

MI can offer treatment solutions for raw materials right from the very first step – the geological survey and analysis of the relevant samples – up to the final implementation of the turnkey plant, running through the engineering and design of each and every single treatment process. Our design team grants the best solutions for any kind of ore dressing: washing, grinding, drying, sorting, flotation, leaching, magnetic separation, optical sorting, etc..

MI can also support customers during the start-up phase and also by means of personnel training.

