

The Yanbu Plant

Yanbu Cristal Complex
 Kilo 21, PO Box 30320
 Yanbu Al-Sinaiyah 41912, KSA

Advanced technology was the driving force in the establishment of Cristal's Yanbu Plant back in 1989 to produce titanium dioxide using the chloride process. This was at a time when the titanium industry was nonexistent in the Middle East. Commissioning started in 1991 and the first marketable quality was produced in April 1992.

At the heart of the Yanbu Plant's success has been its determination to deliver products of the highest quality. Since 1995, internal quality management systems have been certified to ISO 9001 and the company has been affiliated with the American Society for Quality (ASQ) USA and the Institute of Quality Assurance (IQA) UK.

The first major plant expansion took place in 2000-2002. It saw the addition of a fourth line and the expansion of all other units to increase plant production capacity. Further process improvement increased the production capacity by the first quarter of 2004.

A second expansion project was commissioned in 2006 to increase the plant's production capacity by adding a newly developed fifth line, along with major process improvements and technology developments. It was Yanbu's most ambitious plant expansion and one of the largest expansion projects in the pigment industry.

The successful adoption of advanced technology by the Yanbu Plant was, and remains, the genesis of Cristal's further ambitions across the titanium value chain; most significantly in its latest joint venture with Toho Titanium of Japan, in the expansion of a HiPOL TiO₂ pigment plant to deliver cost-advantaged and high quality titanium tetrachloride (TiCl₄) to produce titanium metal sponge. The plant is the first in the world that is fully integrated with a TiO₂ pigment plant creating value through economies of scale and operation synergies.

The Research and Development facility at Yanbu, established in 2003-2004, is the core of our business strategy, with the entire range of related pilot plants required to scale-up its different projects and product innovation.

The Yanbu Plant has ISO:9001 and ISO:14001 certifications.

A Summary of our Performance

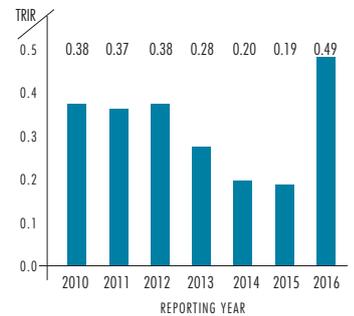
We are passionate about titanium, our employees and the environment in which we operate. Our performance is driven through innovation, human capital, and pioneering new technologies, all within an unyielding commitment to our Zero Tolerance policy.

PROVIDING ECONOMIC VALUE

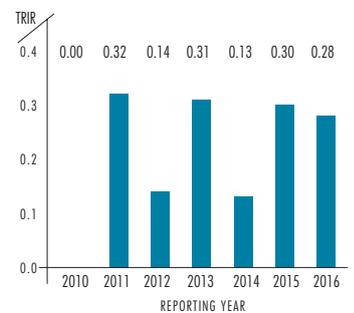
- Approximately 647 employees and contractors
- Payroll and annual benefits of about SAR 121,132 million
- Annual investment of approximately SAR 42.2 million in capital projects
- Approximately SAR 61.7 million is spent for supplies, parts and services



Employee–Total Recordable Incident Rate (TRIR)
 Rate of injuries per 100 employees



Contractor–Total Recordable Incident Rate (TRIR)



Respecting Social Concerns

Cristal's Yanbu plant strives to be a valuable and responsible corporate citizen by proactively engaging with the community, providing job opportunities, and participating in multiple social responsibility campaigns.

- **Community Involvement** – The Yanbu Plant established tight relations with key Yanbu government players, including the Yanbu Royal Commission, allowing a direct link to the government's infrastructure bodies, providing advice, approvals and support on matters also pertaining to corporate social responsibility. Cristal is also a founding member of Economic Development of the Industrial Collaboration Program (ICP) of King Abdullah University of Science and Technology (KAUST), positioning us ahead of the competition in today's tough business environment.
- **Caring for our Community** – The Yanbu Plant is a frequent advocate of corporate social responsibility. Through donations and volunteer work, the site initiates regular Ramadan/Eid community activities and donations, hospital visits, house construction for the needy, blood drives, and water distribution for neighboring villages. The plant also sponsors major city events and campaigns including the annual Yanbu Flower Festival.
- **Protecting our Eco Cause** – The Yanbu Plant plays a critical role in developing the community's infrastructure in the residential areas and protecting the delicate ecosystems of the Red Sea coast. To ensure it meets its obligations, Cristal has created an environmental management system designed to achieve best-in-class standards. The result has been a continuous reduction in air emissions and strict adherence to our policy of zero discharge into the Red Sea.
- **Investing in our Youth** – The Yanbu Plant is in the forefront of KSA industrial companies supporting the development of a skilled Saudi human resources base, achieving record green levels of Saudization. This is coupled with training opportunities for career growth and stimulating job opportunities as the plant continues to expand.

Caring for the Environment

Our Yanbu plant strictly adheres to working in an environment that is both safe and sustainable for our multilingual workforce and the community in which we operate, constantly searching for means of improvement in our safety, health, and environmental sustainability.

- **Safety Performance** – As of December 2016, the Yanbu plant had gone more than 9,548,145 safe working hours (1,122 safe working days) without a lost-time injury. All life critical procedures are updated to meet best practice. Training is provided on a regular basis to improve safety levels and plant performance.
- **Prevention** – The Yanbu plant has a bundle of safety programs in place such as Safety Observations, Safety Interactions, Life Critical Permits, Auditing, Housekeeping, Process Safety Management and Process Engineering, all to ensure safe operations and maintenance and accidental release prevention.
- **Environmental Performance** – Yanbu plant is monitoring the atmospheric emissions and fully complies with environmental regulatory standard. Reduction of these emissions is continuously improving through multiple initiatives. The Environmental Management System (EMS) at Yanbu received a ISO:14001 standard certification.
- **Energy Efficiency** – There are a number of initiatives that are targeting the reduction of energy consumption and improve the environmental footprint of the site. These initiatives aim to optimize the use of different energy resources on Yanbu site such as electricity, steam, fuel gas, LPG and oxygen.

Cristal is one of the largest producers of titanium dioxide and a leading producer of titanium chemicals. Cristal is the world's leading supplier of ultrafine titanium dioxide products and titanium chemicals and is a fast-growing producer of mineral sands and titanium metal powder. Cristal operates eight manufacturing plants in seven countries on five continents and employs nearly 3,400 people worldwide.

Visit www.cristal.com for more information about the company and its products.

Yanbu Cristal Complex
A Cristal Company
Kilo 21, PO Box 30320
Yanbu Al-Sinaiyah 41912, KSA
+966.14.321.2800