

CASE STUDY



Heavy Industrial

End-User Description

A copper foundry located in South America with the capacity to process 1,160,000 tonnes of copper concentrate per year, as well as valuable bi-products from its smelting process. They aim to provide a healthy and safe work environment for employees, are committed to sustainable development and want to be leaders in fugitive emissions reduction.

The Challenge

Aside from copper, the foundry also produces high purity sulphuric acid as a bi-product of the smelting process which requires chemically resistant equipment and materials. Installing the wrong sealing device in a critical service can have catastrophic results, posing risks to workers and the surrounding community, and possibly causing revenue loss resulting from emergency shutdowns and wasted product. Identifying a compatible sealing material can be difficult and in critical services there is zero room for error. Copper processing also creates air emissions that include particles and sulfur dioxide. Emissions pose a potential health hazard to production staff, nearby areas and the environment.

The Solution

Due to the versatility of Durlon® 9000 and its history of low leak rates, it was spec'd for use in the foundry's acid plant to seal pipes containing high purity sulphuric acid. Durlon® 9000 has been extensively tested for compatibility with aggressive chemicals and is proven to be suitable in a wide range of chemical processes, saving the end-user

time in researching and testing other potential materials.

The Benefits

The customers were pleased to discover that the high performance sealing material has passed TA Luft, a European air pollution test standard, aligning with the company's objective in reducing fugitive emissions while maintaining a safe workplace for staff and upholding environmentally sound operations.



Durlon® 9000

Durlon® Products Used

Durlon® 9000

End-User Industry

Foundry/Metallurgy

Media

Sulphuric acid

Pressure

13.8-3.45 bar
(20-50 psi)

Temperature

10°C - 110°C
(50°F - 230°F)

Special Requirements:

- Compatible with sulphuric acid
- Low emission technology
- Suitable for a wide range of temperatures

