

Project Profile - Civil Engineering & Infrastructure

PROJECT

Soda Ash Silo, Kawasaki City,
Japan

SUMMARY

Decoration and protection of
1,500m² concrete base

PRODUCTS

Bond-Prime
Monodex Smooth
Cemprotec GFM 225

CLIENT

TO-KO Terminal Co. Ltd

BACKGROUND ►

This soda ash silo is based at a port in Kawasaki City operated by Toyo-Futo Co. Ltd, one of Japan's most prominent logistics companies. The silo base is of concrete construction and was built around 40 years ago. The silo contains soda ash, otherwise known as sodium carbonate, a chemical compound frequently used in manufacturing, industry and domestically. It is typically found in detergents, cleaning agents, food additives and for glass production.

Over the years, the concrete base had deteriorated due to the harsh conditions experienced in this environment. The external appearance needed to be enhanced and further protection was required to protect the structure from the elements and any remnants of soda ash. Kawasaki has a hot, humid climate in the Summer months, with heavy rainfall throughout the year and is a region susceptible to earthquakes, so the chosen solution needed to be able to withstand these demanding conditions.

THE SOLUTION ►

Monodex Smooth, a high performance, waterborne, elastomeric coating, was chosen for this application due to its outstanding ability to provide effective protection against carbonation, water ingress and weathering for at least 15 years before first maintenance. **Bond-Prime** was initially applied to seal and stabilise the concrete substrate before the application of the first coat of **Monodex Smooth**.

Compliant with the rigorous demands of EN1504 certification, **Monodex Smooth** exhibits excellent adhesion, high diffusion resistance to carbon dioxide and its elastomeric nature facilitates substrate movement and bridging of cracks. For this project, **Monodex Smooth** was applied in two coats in an attractive light grey colour. For further protection from substrate cracking, **Cemprotec GFM 225** glass fibre matting reinforcement was embedded into the coating to impart additional tensile strength.



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