



# MOLYKOTE® grease meets vibration challenge

Case study: MOLYKOTE® BR-2 Plus High Performance Grease holds on where others fail



A worker cuts the end of a prestressing strand from a precast hollow-core plank. The plank is formed by pouring concrete into a form and vibrating it to consolidate the concrete. The vibrator is lubricated with MOLYKOTE® BR-2 Plus High Performance Grease.

## Customer

Precast concrete roofing/flooring manufacturer

## Challenge

Vibrators used to de-air concrete were shaking off grease, causing premature bearing failure

## Solution

Replace a grease that could not stay in place due to vibration with a high-performance grease that provides boundary lubrication properties to ensure emergency lubrication

## Product

MOLYKOTE® BR-2 Plus High Performance Grease

A precast concrete manufacturing company needed a grease that could hold on.

The company manufactures a precast hollow-core concrete roofing/flooring plank system used in hotels, motels, schools, prisons and other commercial construction. The planks are manufactured by pouring concrete into forms more than 50 feet long. Each form sits on four pedestal vibrators about 2 feet tall. Once a form is filled, the vibrators – powered by 15 HP motors – start up and shake the form for 4 minutes until all the air is removed and the concrete is consolidated.

Unfortunately, air wasn't the only thing being removed. Every time the vibrators started up, they threw off grease needed to lubricate the bearings. This caused excessive wear and premature bearing failures. Subsequently, operations had to cease each time the bearings were replaced.

The plant superintendent called his local distributor looking for a grease that would stay in place. The distributor recommended MOLYKOTE® BR-2 Plus High Performance Grease.

MOLYKOTE® BR-2 Plus Grease is a lithium soap grease containing an optimum percentage of solid lubricants – including molybdenum disulfide ( $\text{MoS}_2$ ) – in combination with other highly effective extreme-pressure additives. It performs equally well under high loads at high speeds or low speeds and with reciprocating motion. This makes it particularly well-suited for the vibrating motion of the machinery in this plant.

This application also imposes heavy loads on the gearbox and bearings. MOLYKOTE® BR-2 Plus Grease is formulated to perform under heavy loads, reducing the coefficient of friction and metal-to-metal contact, minimizing wear, and improving running-in conditions. Under load, a boundary lubricating film containing  $\text{MoS}_2$  is deposited from the grease to the sliding surfaces, so emergency lubrication is available. Unlike the previous material used, MOLYKOTE® BR-2 Plus Grease holds on, which results in bearings that last longer – an astonishing 600% longer, according to the customer.



## Learn more about MOLYKOTE® Specialty Lubricants

MOLYKOTE® Specialty Lubricants are providing industrial solutions worldwide. The extensive product line and service and support capabilities can help you solve or prevent your toughest lubrication challenges. To learn more about our *Smart Lubrication*™ solutions, contact your MOLYKOTE® technical representative or visit [molykote.com](https://www.molykote.com).



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