

Application Focus

Aggregate/Asphalt Processing Plant

Customer Profile

Michigan Paving & Materials is part of Old Castle Materials, the leading vertically integrated supplier of aggregates, asphalt, ready mix concrete, and paving services in the United States. At over 1,200 locations across the country Old Castle Materials companies operate trucks, loaders, pavers, and huge industrial equipment that provide the materials to make this country go.

Application Environment

An asphalt batch plant is essentially a heavy duty, mechanical network of motors, gears, conveyers, drums, and holding tanks that process a hot mixture of sand, gravel, and oils that make up a future road surface. The heat, heavy loads, and abrasiveness of the mix makes for one of the toughest equipment environments you can find. One key to making it all work is reliable, high performance lubrication.



Specific Areas of Interest

After a thorough evaluation of numerous lubrication suppliers, the plant was using what they felt was high quality grease designed for extreme pressure loads and harsh environments like asphalt plants. Even with the best grease they could find Vincent Weatherspoon, Plant Operations Manager, had to schedule around frequent maintenance downtime and equipment failures. A certain amount of bearing loss had become "acceptable". A specific area of concern was in the trunnion bearings that allow for the rotation of a 20-30 ton drum where temperatures can sometimes reach up to 700 degrees F. "All of the greases we tried before got hot and ran right out of the housing, leaving the bearings with little protection."

The Micro-Armor Solution

The Micro-Armor representative explained that Micro-Armor greases were designed for the toughest, most extreme conditions. How the patented Micro-Armor technology not only provided better lubrication but also filled in the scratches of damaged metal surfaces allowing bearings, gears, chains, and other metal surfaces last longer.

That all sounded fine, but as Mr. Weatherspoon stated "I'm a hands on type of guy. Seeing it work myself is believing." Seeing bearings that aren't wearing out and grease that stays on hot gears... now that's believing. Hearing drive chains that run quieter longer and touching gear boxes that feel cooler... that's believing."

Michigan Paving & Materials now uses Micro-Armor 5000 and 6000 Grease in all of their greasing applications, including their Seceo double-decker screener, trunnion bearings, feeder bearings, bag house bearings, cold and hot drums, and flop gates. Micro-Armor 1000 Oil Treatment is used to reduce friction and heat in all gear boxes and Micro-Armor 4000 Spray Lubricant is used on all of the drive chains.

Vincent Weatherspoon, Plant Operations Manager, summed it up by saying, "we thought we were using the best lubricants out there, but now we know we are. Micro-Armor just works!"



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