THE EXPERTS IN INDUSTRIAL SAFETY

CHECKERS®

INDUSTRIAL SAFETY PRODUCTS

WHITE PAPER:

WHEEL CHOCKS: URETHANE VERSUS RUBBER

Dedicated to saving lives and protecting assets

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WHITE PAPER: Wheel Chocks – Urethane versus Rubber

Ongoing testing and side-by-side comparison demonstrate urethane chocks are more resistant to damage, are easier to carry and deploy, and provide greater safety capabilities than similar rubber chocks.

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Wheel chocks represent critical safety equipment in industrial, mining and aviation settings. Their proper and sustained use ensures that lives are protected, and such use is required by the DOT, NFPA, SAE and MSHA.

There are multiple wheel chocks on the market, including those constructed of aluminum, wood, rubber and urethane. Federal guidelines do not generally specify the type of material that must be utilized for industrial applications; however, rubber and urethane are the two most commonly selected by safety managers.

Checkers' Monster urethane chocks model AT3514

Too often the final decision as to which chock to use is determined by chock cost. Unfortunately, this methodology is short-sighted when a long-term cost analysis is conducted as rubber has been shown to be less resistant to damage or breaking than urethane counterparts, thus requiring more frequent replacement and resulting in a higher cost.

Monster urethane chocks model UC1500 used on a utility truck

A Comparison of Urethane Chocks versus Rubber Chocks

Checkers Industrial began developing and testing urethane chocks in the late 1980s with a significant investment that required extensive engineering and design. Testing initially included the comparison of the new urethane products against chocks made of various materials, including both metal and wood, as well as the more commonly utilized rubber.

Greater Strength and Flexibility: Initial independent testing showed—and repeated subsequent testing has confirmed—the urethane chocks consistently had a higher load-bearing capacity than their rubber counterparts and were better able to absorb high impacts from heavy

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machinery. While mimicking the flexibility of rubber, urethane chocks also showed significantly greater strength and resistance to abrasion. Over time, the urethane chocks also proved to better withstand harsh working conditions and extreme weather.

Improved Ease of Use: Because of the risk of human error in the placement of wheel chocks, ease of use was also considered and evaluated by Checkers in multiple testing environments. Urethane chocks have been shown to be 20 to 50 percent lighter in weight than similarly sized rubber chocks, providing ease of carrying and transport. Urethane construction also allowed the molding of ANSI-compliant chocking guidelines into the chocks themselves; an option not available in traditional rubber manufacturing. Molding of built-in carrying handles was also shown to be of benefit to workers in multiple industrial applications.

Rubber chocks are more susceptible to cracking and breaking

Superior On-Site Visibility: The use of urethane in chock manufacture has allowed other features to promote safety and protect both lives and assets. One of the most impactful is the ability to produce the chocks in high-visibility safety colors, which further aids in proper chock placement as well as raising awareness for those walking or driving around equipment secured by these components. This is in stark comparison to the rubber chocks, which have not successfully been manufactured to incorporate safety colors.

Summary

When compared with rubber chocks of similar size and rating, independent testing of urethane chocks shows them to provide greater strength and flexibility, improved ease of use and superior on-site visibility. In addition, while rubber chocks are initially less expensive than rubber chocks, they must be replaced far more frequently than their urethane counterparts due to more rapid deterioration and their susceptibility to damage.

Monster model MC3011 urethane chocks provide superior visibility