

## A New Agent for Removing Concrete Residues from the Surfaces of Polypropylene Molds in the Manufacture of Paving Slabs and Its Advantages

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### Abstract

Washing the working surfaces of propylene molds to remove residues of the concrete mixture is an important stage in the technological process of pavement slab production. Hardened concrete adheres strongly to polypropylene, and molds with residues of hardened concrete can no longer be used. They may be washed in solutions of strong inorganic acids of fairly high concentration. This is dangerous for both the equipment and the polypropylene surfaces of template molds. The purpose of this work was to create a new washing agent of satisfactory quality, enabling the non-destructive washing of polypropylene surfaces without mechanical interference. Another important objective was to reduce the cost of this agent relative to existing counterparts, so as to maintain the profitability of the process. The effectiveness and advantages of the newly developed agent were proved by the weight analysis method. This represents a scientific innovation in that a new effective means for removing hardened concrete residues from the working surfaces of polypropylene molds has been created, and a method for its preparation has been developed. The ability to wash the surfaces of polypropylene molds with maximum preservation of the surface quality, which significantly prolongs their use, is a valuable practical benefit. In addition, the mixture is shown to offer other significant advantages, including the lack of destructive impact on the polypropylene surface of the mold, availability and cheapness of the constituent components, ease of preparation, and absence of sharp and unpleasant odors. Preparation of the new mixture can be carried out both at specialized industrial sites and directly at paving slab production plants. The proposed agent has an unlimited shelf life over a wide temperature range.

- [Antifungal Agents](#)
- [Biomethanol](#)
- [Building Materials](#)
- [Coating](#)
- [Concrete](#)
- [Zeolites](#)
- [Durability Enhancement of Cement-Based Materials](#)

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