

Under What Conditions Can Formwork Be Re-Used?

Description

Formworks play an integral role in the concrete construction industry. These specialty molds are set up before the concrete gets poured to keep it in the proper shape, size, position, and alignment as it solidifies. There are many types of formwork constructed from materials as diverse as timber, aluminum, and even reinforced plastics, but not all of them can be reused indefinitely. Read on to find out about different types of formworks and the conditions under which they can be reused safely and effectively.

Reusing Metal Formworks

Steel and [Aluminum Formwork](#) is well-known within the industry for its ability to carry a load of heavy concrete, even under longer spans. It also has excellent potential for reuse. It's much easier to strip aluminum and steel formwork than it is to remove concrete from wood, and aluminum forms are lightweight enough to make removing, cleaning, transporting, and reusing them a breeze. Steel is just as practical when it comes to reuse, but it's heavier than aluminum and thus more difficult to work with.

Reusing Wood Formworks

Wood formworks are some of the most widely used systems in today's construction industry. They use a combination of timber or lumber and plywood sheathing to support the weight of shorter lengths of concrete. While wood formwork is very cost-effective in the short term, it provides a highly limited number of reuses. In many cases, the sheathing can be used only once before it must be disposed of. Over time, that affects the long-term cost of using wood formworks instead of investing in heavier-duty alternatives.

Reusing Glass-Reinforced Plastic Formworks

Glass-reinforced plastic formworks are made from [fiber-reinforced polymer](#) (FRP), a high-strength, lightweight material that can be useful for molding unusually shaped concrete elements. Like metal formwork, glass-reinforced plastic forms can be reused multiple times. However, they tend to be used for molding complex shapes and unique features, so frequent reuse is comparatively rare.

How to Care for Formwork Between Uses

Every formwork panel, regardless of what material was used in its construction, should be inspected and stripped between uses. If any of the forms are damaged, repair them or replace them before reuse. Since formwork has a strong impact on a finished structure's aesthetic appearance, defects in used formwork will almost always show up on the finished concrete surfaces. Aluminum and steel formwork should also be oiled between uses to prevent corrosion.

Save Money By Reusing Formworks

Formwork can account for [as much as 50%](#) of the construction costs associated with concrete buildings. Reusing it is a great way for contractors to save money on those costs without reducing the value of their final products. Some experts estimate that the cost of purchasing formwork materials drops by 40% after just five reuses, and more durable materials like aluminum and reinforced plastic can be reused many times.

The amount of money contractors will save by reusing formworks depends on what materials they choose. The most economical formworks are those that can be stripped from concrete easily with minimal risk of damage. Opting for lightweight, easy-to-transport options is also a good idea.

The Bottom Line

Formworks play an essential role in building creation. Whether contractors focus exclusively on concrete construction or they just use the formworks to pour foundations, it makes more sense to invest in high-quality products that will withstand the test of time and repeated reuse.

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