

The Evolution of Medical Utensils & The Future of Medical Moulded Pulp

Quality medical equipment is integral towards helping medical practitioners administer safe and effective treatments for their patients. This is why many individuals have expended hours on end and much effort towards continually improving medical equipment and utensils. Unbeknownst to many, medical utensils have come a long way since their early beginnings, and the biggest change lies in the material from which it is made.

Metal Utensils



Traditionally, metal has always been the go-to material when crafting medical utensils, surgical instruments, and other medical equipment. The most common metals used for surgical instruments, for instance, include stainless steel, titanium, tantalum, platinum, and palladium.

The benefits of metal medical equipment are many. For one, it is able to withstand high temperatures.

This characteristic is crucial during the sterilisation process, where instruments are often sterilised via hot steam at a minimum of 121 degree celsius temperature, for half an hour. Surgical instruments are also meant to endure constant wear and tear, as well as resistance to corrosion. Constantly being exposed to bodily fluids can corrode many materials, and since metal is fairly durable, this makes it an ideal candidate for medical instruments.

Nonetheless, metal as a material is costly and time-consuming to maintain. Not only would medical practitioners have to invest in the use of chemicals and sterilisation equipment, but they would also have to expend time and energy to clean such instruments, rendering it a less-than-ideal long-term solution.

Plastic Utensils



This is when many turned to plastics to reinvent the wheel and to produce a more cost and energy-effective solution for manufacturing and maintaining medical instruments. Plastic is an incredibly versatile material that is used to make medical equipment and utensils. This includes disposable plastic medical containers, syringes, blood bags, as well as other more advanced medical parts, such as new heart valves and prosthetics.

There are a number of reasons why plastic continues to be used by many. It is especially useful for products that are used once, such as surgical gloves, syringes, insulin pens, IV tubes, catheters, and more. It eliminates the need to sterilise and re-use a piece of equipment, which, if not done properly, could pose significant health risks. Another unique quality of plastics includes their ability to create special antimicrobial touch surfaces that can repel bacteria and other microbes, thereby reducing the spread of diseases.

Plastic is also fairly durable, which makes it ideal for the creation of medical safety devices, such as tamper-proof caps on medical packaging and medical waste disposal bags. Moreover, while metal-based medical devices are prone to wear and tear, as well as corrosion when not properly maintained, plastic can be treated to withstand such stress. It is a cost-effective material to boot that can be mass-produced at low rates.

Nonetheless, despite its many benefits, plastic as a material is not especially environmentally friendly, especially when utilised in many single-use medical utensils and equipment. It is also difficult to dispose of in an environmentally-friendly manner. Considering the state of global warming we are facing, many are calling for the decreased usage of single-use plastics across all industries - including the medical industry.

Moulded Pulp Utensils



Most recently, the popularity of medical moulded pulp has been rising exponentially. Put simply, medical moulded pulp is the by-product made when recycling a variety of fibrous materials such as recycled newspaper, cardboard, and paper. Nonetheless, this seemingly simple material is extremely versatile, cost-effective, and environmentally friendly.

Moulded pulp can be used to manufacture a variety of medical equipment, such as single-use moulded pulp urine bulbous, wash bowls, and bedpan liners. This prevents cross-contamination, and is also sturdy enough to contain corrosive bodily fluids. Apex moulded pulps have been tested to exceed international standards of PAS29:1999 (Water retention > 4 hours), and have been further accessed to exceed 24 hours.

Moulded pulp is also simple to dispose of. The moulded pulp and its contents can be disposed of together into a macerator, which will shred the items into tiny particles that can be safely disposed of in the sewage system, without risking blockage.

Moreover, while many have criticised the use of single-use plastic products, Apex moulded pulp is manufactured from recycled raw material materials, mainly newspaper and kraft papers. This means that moulded pulp use is an effective, biodegradable, and environmentally-friendly way to manufacture single-use products that will both prevent cross-contamination and unnecessary labour in cleaning.

The First Step to Revolutionising the Medical Industry

Undoubtedly, with its numerous benefits, moulded pulp is revolutionising the medical industry, and is emerging as a strong competitor to traditional materials such as plastics and metal. Acquaint yourself with us today if you are interested to find out how we can help manufacture and supply quality moulded pulp products.

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