

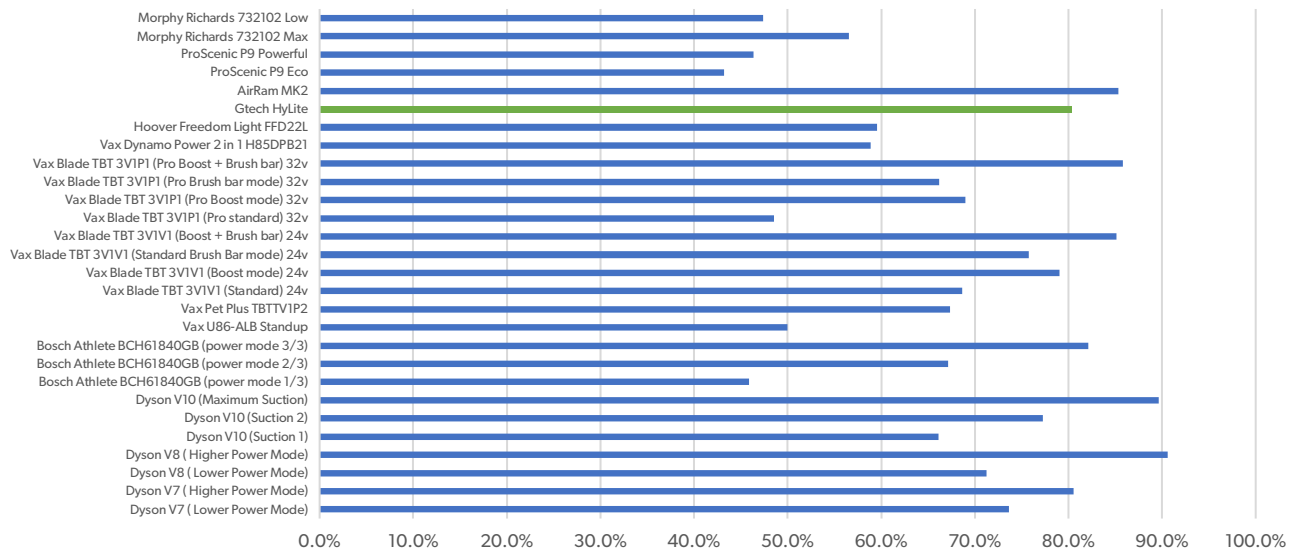
The Gtech HyLite

We believe in full transparency, which is why we want to make it clear how we calculate any claims we make in our copy. Where we can, we test all of our products in accordance with IEC guidelines using standard IEC62885-2 – these are official international standards that determine how vacuum cleaner manufacturers can talk about their products. That means that all vacuum cleaners have to pass certain tests (that follow the same rules) in order for them to be sold in certain ways. Everyone has to follow these same rules so that customers can make fair comparisons between products. If there are not currently international standards, we refer to the British Standards and test guidelines.

Cleaning results and cleaning performance

When we talk about cleaning results, we’re referring to how well our products clean on hard floors, carpets and in crevices according with IEC 62885-2; 5.1, 5.2 and 5.3. The results are calculated as the percentage of dirt we lay out that the vacuum picks up. For example, if a vacuum were to pick up $\frac{3}{4}$ of the total dirt applied from a controlled surface (one set up as per IEC standards), it would have a cleaning result of 75% on that surface. An average cleaning result from the 3 tests is then taken, as shown below in comparison to other vacuum cleaners on the market.

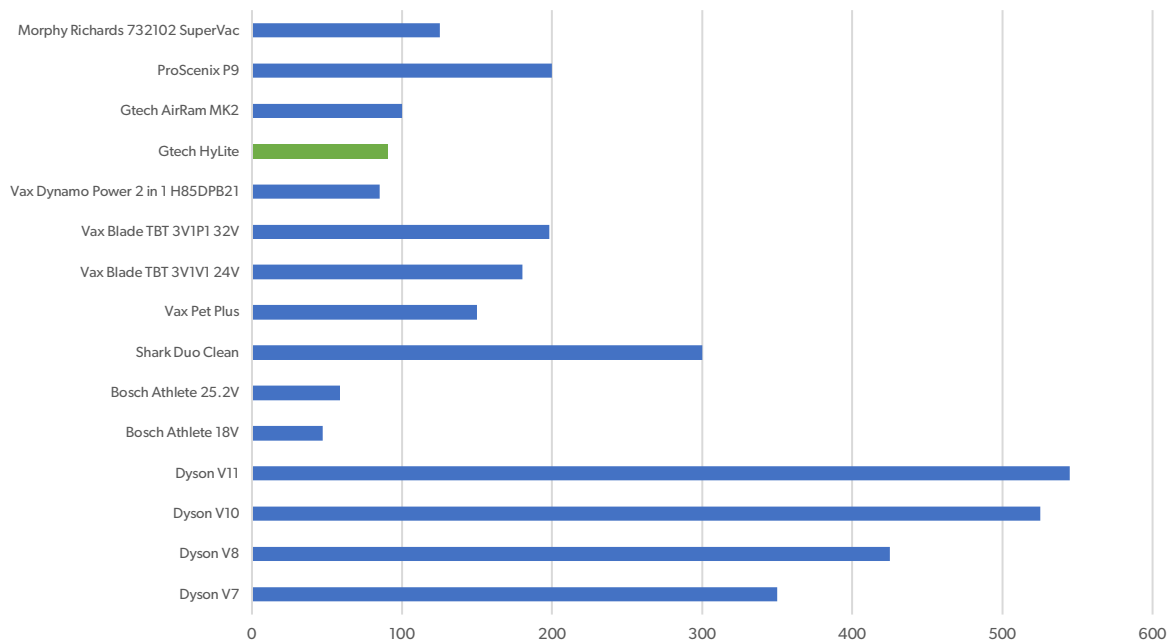
Pick-up performance



The Gtech HyLite has a high pick-up performance.

When we look at IEC test results, we divide the average cleaning percentage by its rated power consumption (RPC). For example – the HyLite has an average cleaning result of 80.4% (across the 3 tests) and an RPC of 90W. That gives it a cleaning performance score of 89. For reference, this is a comparative table of the power consumption of a variety of vacuum cleaners on the market.

Power Consumption (Watts)



The Gtech HyLite has a low power consumption.

Bag capacity and compression of debris

±Simulation home debris used in test; debris compressed up to 3 times bag's volume.

There is no specific IEC standard that covers debris compression in a bin, so we've followed the method outlined in the IEC standards (62885-2; 5.7 – maximum usable volume) to measure uncompressed capacity. Using these standards, we established that the HyLite bag has an uncompressed volume of 0.3L.

To establish debris compression, we used a representative simulation house dirt in this test (as per IEC 62885-2; 7.2.2.3) – we have also run user trials to see what types of dirt average customers pick up from around their homes. We then use a mixture of hair, fine dust, such as talc, sand, loose tea, and a natural fibre called Kapok (like teddy bear filling) to replicate this dirt. By doing this, it makes the test repeatable and the same type of material is picked up during each test. We made up bundles of these types of debris, blended them together and spread them out across carpet. Using a fully charged HyLite, we vacuumed up the dirt and continued replacing the batches until the HyLite physically couldn't lift any more dirt.

We emptied the bag out into a measuring cylinder, threaded a compressed airline through a hole in it and sealed it all. We then sent air into the cylinder for 60 seconds, which decompresses the dirt and brings it back to its natural state (how it was before the HyLite compressed it). We did this repeatedly to ensure our results are accurate. On average, the HyLite actually lifted up to 1L (0.9L on average) of dirt despite its 0.3L bag, proving it can hold up to 3 times its volume of dirt.

+Source: internal data, 2019 – amount may vary depending on house size and amount of debris.

We rigorously tested the HyLite's bags before we launched this product. Our internal tests found that, based on an average cleaning schedule, households would use 7 bags per year.

This is worked out by taking data from AirRam users' battery packs that had been used for over 3 years as the primary vacuum cleaner. An average amount of time spent cleaning per week was then established, based on real Gtech customers. Based on the HyLite's compression factor, the typical amount of debris applied per square meter of flooring and the average UK home area, we calculated that just 7 bags are needed per year in average households. We sell our HyLite replacement bags in packs of 15 – this is 2 years' worth of bags. By

selling 2 years' worth of bags in one package, we reduce the amount of deliveries we make and reduce our carbon footprint – and yours.

Energy consumption

Charging the HyLite's 14.4V Lithium-ion battery uses over 8 times less mains power than many corded vacuum cleaners need during use (per year)

We talk about how much power the HyLite uses because it's important to us. Our aim with cordless products has always been to deliver fantastic cleaning performance that rivals that of corded products – without the high energy consumption that many of them rely on.

The maximum amount of power that a corded vacuum can use is 900watts, according to European Energy consumption directive 2017. If you use a 900w corded vacuum for 20 minutes, you're using 300wh (watts/hour is worked out by dividing the wattage by the amount of time it's used for). The HyLite is cordless, so we worked out how much wattage would be needed to fully charge the battery so that it could be used for the same amount of time – 20 minutes. The HyLite uses just 34.6wh to provide 20 minutes of runtime. That means it uses over 8 times (8.6 times, to be precise) less mains power than an average corded vacuum cleaner that uses 900w.