ICE ICE BABY

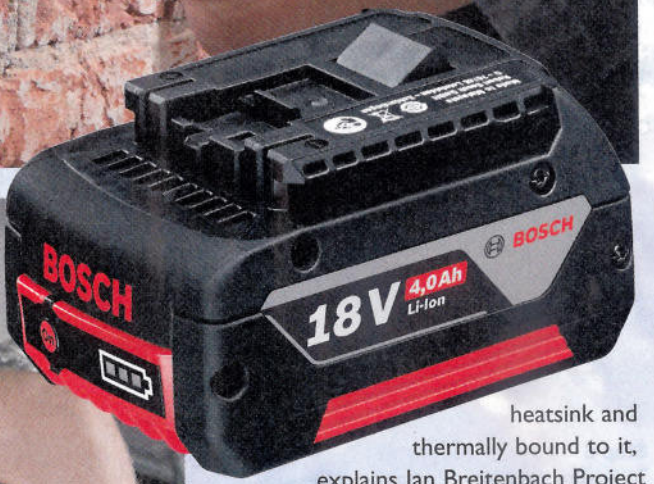
Keep your cool with the new CoolPack battery from Bosch.

More run-time, better performance, longer lasting... all of us that use cordless know what we want from our battery-driven tools. However, manufacturing batteries and tools to meet these requirements isn't quite so straightforward. So, when Bosch told PB about its latest development, the CoolPack battery, we went along to the company's UK HQ to learn more.

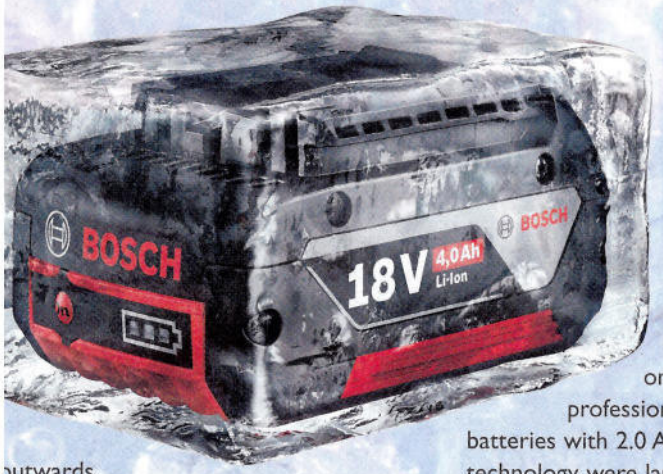
Battery technology is the beating heart of the cordless tool. Without a solid power pack your cordless drill, saw or hammer is about as useful as a chocolate teapot. The CoolPack unit from Bosch promises great things, including the holy grail of increased run-time and longer lifetime. This is difficult to achieve because the more the tool is used the hotter the battery becomes and heat causes damage to the cells, reducing its longevity.

Pack it in

In its attempt to square this circle Bosch has developed a special housing geometry for CoolPack batteries: the lithium-ion cells are pressed precisely into a red heatsink and thermally bound to it, explains Jan Breitenbach Project Leader for Battery Technology at Bosch. He continues, "It is made of HDPE, a very high density polyethylene. This material is very good at conducting heat, while being electrically insulating and increasing the safety of the battery".



The cooling fins fitted on the bottom offer an enlarged surface for heat exchange and dissipation of the heat



outwards, similar to the effect in a refrigerator. As a result, Cool Pack batteries have a considerably longer life: "Our measurements have shown that the lifetime of these batteries is double that of those without CoolPack technology", says Breitenbach.

Bigger batteries

The Coolpack technology is already in use on many of the company's batteries. The new 4.0 Ah lithium-ion batteries with CoolPack technology became available at the beginning of this year on 14.4 and 18 volt professional tools. Compact batteries with 2.0 Ah and CoolPack technology were launched in May 2013.

Breitenbach explains how the 4.0Ah batteries have a much bigger punch than previous platforms. "Tests by SLG Prüf- und Zertifizierungs GmbH, an independent testing and certification company, prove that the runtime of our GSR 18 V-LI cordless drill/driver is increased by 65 per cent when using a 4.0 Ah battery compared to a 3.0 Ah battery. Our 4.0 Ah lithium-ion batteries are now clearly superior to both Nickel Cadmium and Nickel Metal Hydride batteries."

We'll be putting Bosch's claims to the test in a future issue, but an initial look at the CoolPack suggests the German giant has found some interesting ways to solve that age old problem of heat vs. power. Now, if only they could find a way to keep our beer cool in the heat of the midday sun too.

MORE INFORMATION

For further information on Bosch's CoolPack Battery use the reader enquiry number 249