



Furutech NanoFlux

Cryogenic treatment, a patented demagnetisation process and silver/gold 'dosing' lie at the heart of Furutech's latest flagship speaker cables. Review & Lab: **Paul Miller**

It's all about the copper in Furutech's cables. Even the geometry of this flagship NanoFlux design is fairly conventional, as is the multistrand conductor style and 'audio grade' PE (polyethylene) dielectric that binds it. The carbon-fibre sleeving of those bright, rhodium-plated plugs/spades and ferrite clamp certainly adds to the exquisite finish of these supremely well built cables, but it's what you can't see that really makes the difference – Furutech's proprietary 'Alpha Nano-Au-Ag OCC Pure Transmission Conductors'.

All metal parts in these cables and connectors benefit from Furutech's proven two-stage 'Alpha Process'. This begins with cryogenic cooling in either liquid nitrogen or helium to temperatures at or below -195°C . The cycle of cooling and gradual warming to room temperature relieves microscopic stresses in the OCC copper conductor's crystal structure, influencing both its mechanical and electrical properties. The next step involves a precisely-controlled demagnetisation using one of Sekiguchi's patented ring demagnetiser machines.

For these latest NanoFlux cables Furutech introduces yet another stage as the OCC conductor surface is coated in a thin layer of a silver/gold colloid, a 'transmission enhancer' that Furutech describes as a Nano Liquid. As far back as the 1850s, chemist Michael Faraday was experimenting with optically-active gold colloids, but Furutech is using squalene oil for its suspension and is more interested in the lubricant's electrical properties as these nano-sized particles back-fill any microscopic imperfections in the copper surface.

On our lab bench these conductor, dielectric and geometric features all



ABOVE: Furutech's NanoFlux employs extensively treated OCC copper strands with an EMI-blocking ferrite and polished, nickel-plated copper bananas at the speaker end of the cable

combined to deliver a low 86.1pF/m parallel capacitance, a moderate $0.63\mu\text{H/m}$ loop inductance and, thanks to the substantial multistrand gauge, a very low 4.8mohm/m series resistance (equivalent to a mere 0.0052dB/m loss). Whatever else might be claimed for its NanoFlux cable, these lumped parameters suggest great compatibility over long lengths.

LYRICAL LUXURY

Added with my B&W 800 D3s [*HFN* Oct '16] and both Devialet and Constellation Taurus amps [*HFN* Dec '17], Furutech's 4.5m lengths of NanoFlux cable may not have excited the immediate reaction of Naim's Super Lumina [*HFN* Feb '18] but they did lay the foundation for an unassumingly detailed presentation. The broadest of musical soundscapes, including that sparked by 'Plastic Island' from Danish bassist Jasper Høiby's *Fellow Creatures* [96kHz/24-bit; Edition Records EDN 1075], spilled out

LEFT: The amplifier-end of the cable is fitted with Furutech's 'CF-201R' rhodium-plated, cryogenically-treated copper spades

into the room with an easiness that bordered on luxuriant. Mark Lockheart's sax rang clear while the piano and stick work had a percussive edge that was realistic sounding but not taxing, just as the tone of the instruments was colourful but not lush.

Where appropriate, music retained a huge punch – the low loop resistance ensuring the Devialet 800's output was undimmed – and so deep bass remained taut, crisp and extended. There's no wooliness here and neither is there any obvious artifice, just smooth and breezy detail delivered with panache. Just as the very best systems should, of course... ☺

HI-FI NEWS VERDICT

While Furutech's NanoFlux conductors may be coated in a silver/gold-infused lubricant, there's rather more science than snake oil at work here. The brand is not alone in employing cryogenics to treat its copper strands and connectors but is surely unique in its triumvirate of cryo, demagnetisation and nanoparticle surface coatings. Gratifyingly, the sound quality it promotes is as refined as the processing, buffing your high-end system with a final polish.

Sound Quality: 85%

