

Press release

Solid as metal, elastic as rubber

GUMMETAL® — the premium orthodontic wire for gentle treatment

A lot of different wires from different manufacturers is are being offered for use as active wires in fixed orthodontic appliances. With the GUMMETAL® premium orthodontic wire, Morita offers an extremely biocompatible titanium-niobium wire with outstanding physical properties, a wire that requires fewer changes thanks to its high elasticity while at the same time exhibiting great malleability and strength. This also translates into much gentler treatment procedures.

Complaints about uncomfortable fixed orthodontic appliances — especially from young patients — are not uncommon. The treatment is often associated with pain, especially directly after a wire has to be adjusted. Conventional wires require frequent replacement due to their low elastic deformability and the associated risk of breakage. And after each wire change, the teeth are exposed to new forces, initially stronger and subsequently decreasing.

GUMMETAL® by Morita is different. This innovative orthodontic wire, made of a special titanium-niobium alloy, combines an extremely low Young's modulus with high strength. This means that considerably fewer wire changes are required than with other orthodontic wires. As these changes are usually associated with force increases and therefore with additional pain, a treatment that uses GUMMETAL® will be much gentler. The resulting forces also remain continuously low with this premium orthodontic wire, ensured by a 2.5% higher elastic deformability compared to conventional orthodontic wires. Thanks to its high springback levels and extremely low surface friction, GUMMETAL® is also gentle on the natural dentition. GUMMETAL® bows are also suitable for patients with allergies or other intolerances, as the nickel-free titanium-niobium alloy is extremely biocompatible and contains neither heavy metals nor other toxic components.

The outstanding properties of this premium orthodontic wire make GUMMETAL® the ideal addition to Morita's orthodontic portfolio – after all, the traditional family-owned Japanese company has always focused on maximum patient comfort. This is amply demonstrated by various treatment units (such as the Spaceline EMCIA ORTHO and SIGNO G10 II S ORTHO), devices for diagnostics and imaging (such as the Veraviewepocs 2D CP), handpieces and instruments (such as the TorqTech and Ortho-Strips), and orthodontic demonstration models — and now also by the GUMMETAL® premium orthodontic wire, a product that Morita acquired from orthodontic specialist Rocky Mountain Orthodontics in mid-2018.

The premium orthodontic wire is available in different variants – either as round or rectangular bows or in the form of wire coils or rods. For example, the use of a wire with a rectangular cross-section permits three-dimensional torque control of the tooth movements right from the start of orthodontic therapy. For esthetic treatment with plastic or ceramic brackets, Morita will also be offering a rhodium-plated version of the wire starting in Q2 2019. Rhodium plating ensures that the esthetic appearance is retained more permanently than with the white coating of conventional wires.

More information about GUMMETAL® is available at <https://www.jmoritaeurope.de/en/products/auxiliaries/orthodontic-arch-wires/gummetal/>

Info box: GUMMETAL® – the premium orthodontic wire

- Low Young's modulus
- High strength
- Excellent springback properties
- Fewer wire changes – gentler treatment
- Continuously low active forces
- Excellent biocompatibility, hence well-suited for patients with particular sensitivities

Illustrations



Fig. 1: GUMMETAL® facilitates stable wire bending while offering excellent springback properties