

PRESS RELEASE

## **NYLAFORCE® A 50-12643**



### **NYLAFORCE® A 50-12643 - New feed up-polyamide with high level of hydrolysis resistance**

LEIS Polytechnik polymere Werkstoffe GmbH presents the latest member of the **NYLAFORCE® A** family with **NYLAFORCE® A 50-12643**. Like all **NYLAFORCE®** materials, **NYLAFORCE® A 50-12643** is manufactured with the feed up-process and therefore has the great mechanical strength typical of **NYLAFORCE®**. A new type of stabilisation also gives **NYLAFORCE® A 50-12643** very effective resistance to hydrolytic corrosion.

Although **NYLAFORCE® A 50-12643** already has excellent hydrolysis resistance compared with semicrystalline polyamides, it has been possible to greatly improve this with the new material. For example, the life of compressor housings is extended by about 400%. By contrast, the mechanical properties are scarcely affected by stabilisation, the tensile strength being about 220 MPa and the E (elasticity) modulus is almost 18.000 MPa.

The special characteristics of **NYLAFORCE® A 50-12643** become clearer in practical tests and applications since here parts are usually subjected to superimposed stresses. This is where the excellent bonding of polymer and glass fibre achieved with the feed-up process comes into its own, with the result that the performance of dynamically stressed **NYLAFORCE®** parts is up to 20% above the values for traditionally produced polyamides with 50% glass fibre reinforcement according to the tension test per ISO 527.

**NYLAFORCE® A 50-12643** is especially suitable for parts subject to pressure and functional parts subject to heavy mechanical stress in a humid environment and temperatures of up to 80°C. In these areas it may even be used as a substitute for light metals such as aluminium and magnesium.

LEIS Polytechnik polymere Werkstoffe GmbH ([www.leis-polytechnik.de](http://www.leis-polytechnik.de)) is a specialist for developing and producing high-performance plastics. The company has exclusive know-how in the sectors metal substitution (product line **NYLAFORCE®**) and tribologically optimized plastics (product line **TRIBOCOMP®**).