

Customized
to the
Requirements

LUVOCOM® LFT Case Study: ELAFLEX Aviation Fuel Nozzle



- Excellent strength
- Outstanding impact resistance
- Chemically resistant
- Meets requirements in harshest environments
- Customized colors

ELAFLEX HIBY GmbH & Co. KG and LEHVOSS Group have joined forces to optimize a nozzle for the aviation sector. The objective was to optimize the handle of a nozzle for all kind of aviation fuels in order to ensure safe refueling of aircrafts at all times in the tough airport environment.

Elaflex aviation nozzles are used worldwide in all climate zones. In this respect, all components must withstand the demanding collective stress caused by outdoor weathering, handling and media contact. Contact with various aviation fuels, de-icing agents, lubricants and cleaning agents must not lead to functional restrictions. In addition, the minimum and maximum operating temperature, strongly fluctuating humidity and exposure to sunlight must be taken into account. Furthermore, there are high mechanical loads in regular operation, but also abuse loads due to hitting other devices or the valve falling down. In particular, the handle must withstand these loads without breaking. In the event of damage to this component, the entire tank vehicle for aircraft refueling would in principle be temporarily shut down.

For this reason, the optimization of all properties was required. The choice fell on a mechanically highly resilient and impact-modified material: LUVOCOM LFT PA66-GF30, a long fiber reinforced and highly impact modified polyamide.

All requirements are met in full, both in the colored variants and in the electrically conductive version. In particular, high impact strength, even in extreme cold, speaks for the use of the LUVOCOM LFT. The very good colorability of the LFT is used as an identification feature (safety against confusion) for different fuels.





About ELAFLEX

ELAFLEX is a global leading system supplier for refueling equipment and safe connections for the transfer of dangerous goods and sensitive fluids.

ELAFLEX provides quality engineered, standard compliant and durable products. Hoses, fittings, couplings, expansion joints and nozzles have been setting standards, since 1923. A sound investment both in terms of performance and total lifetime cost benefits.

As an internationally operating family company with a long history experience and competence are combined. ELAFLEX stands for key values like responsibility, continuity, the spirit of innovation and flexibility in thought and action.

About LEHVOSS

The LEHVOSS Group under the management of Lehmann&Voss&Co. is a group of companies in the chemicals sector that develops, produces and markets chemical and mineral specialities for various industrial clients. Lehmann&Voss&Co., Hamburg, was founded in 1894 as a trading company. Since that time, the owner-run company has evolved into a powerful global organization – with long-standing connections to prominent, mainly foreign suppliers and with its own production sites in Europe, the USA and Asia.

The Customized Polymer Materials (CPM) division has been a partner to industry since 1984 in terms of material development, production and support, from design to part production. LUVOCOM® LFT is one of the high-performing product lines. LFT stands for long fiber reinforced thermoplastics. LEHVOSS offers customized solutions for challenging applications that are unique and stand out in the market.



Europe & Head Office

Lehmann&Voss&Co. KG
Alsterufer 19
20354 Hamburg | Germany
Phone: +49 40 44 197 250
Email: info@lehvoss.de

www.luvocom.com

North America

LEHVOSS North America, LLC
185 South Broad Street
Pawcatuck, CT 06379 | USA
Phone: +1 855 681 3226
Email: info@lehvoss.de

Follow us on:  

Asia

LEHVOSS (Shanghai) Chemical Co., Ltd
Unit 4805 Maxdo Centre
8 Xingyi Road, Changning District
Shanghai 200336 | China
Phone: +86 21 6278 5186
Email: info@lehvoss.cn

