

SMOOTH OPERATION FOR SURGICAL TOOLS

INDUSTRY:
Medical

APPLICATION:
Hand-Held Suture
Deployment System

COMPONENT:
Shaft

LOCATION:
USA



BACKGROUND

A medical device company that designs novel surgical tools for arthroscopic procedures developed a hand-held device that enables surgeons to place stitches in very tight joint compartments, while protecting sensitive surrounding structures such as nerves, arteries and cartilage. This single use device has applications in numerous arthroscopic procedures in knees, hips and shoulders. The company had been using a competitor grease to lubricate the shaft within the system but wanted to explore alternatives. The company came to Nye in search of a food-grade grease to reduce noise, vibration, and harshness in the surgical tool.

CHALLENGE

- Can we provide a food-grade lubricant that ensures smooth operation in the suture device?

SOLUTION

UNIFLOR™ 8512-FG

PTFE thickened, medium viscosity, fluorinated grease.

- NSF H1 Approved: Registration #136803 for incidental food contact
- Dampens noise, vibration, and harshness
- Wide operating temperature range



RESULTS

Before going forward, the medical device company audited Nye and was impressed with our ISO 13485:2016 certification and placed us on their Approved Supplier List. After passing in-house validation tests, the company decided to implement Uniflor™ 8512 in their surgical tool design. They pleased with the results and our short lead times that enabled them to meet the increased demand for their product.

Base Oil Properties	Conditions	Uniflor™ 8512-FG	Test Method
Chemistry		PFPE/PTFE	
Temperature Range		-50 to 225°C	
Kinematic Viscosity	100°C	15.8 cSt	ASTM D-445
Viscosity Index		258	ASTM D-2270
Grease Properties			
NLGI Grade		2	ASTM D-217
Oil Separation	24 hrs, 150°C	10%	ASTM D-6184
Evaporation	24 hrs, 150°C	<3%	ASTM D-972

Since 1844: Our performance is reflected in the value we bring to our customers.

Nye Lubricants is a leader in the innovation, formulation and provision of synthetic lubricants, enabling and improving breakthrough products and critical new technologies. We bring proven experience, deep technical knowledge and customer focus to solve our customers' toughest challenges, adding tangible value to products in a wide range of industries and applications.

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