

WEAR AND FRICTION SOLUTIONS FOR POTENTIAL USE IN MEDICAL DEVICES

LNPT™ LUBRICOMP™ and LUBRILOY™ Compounds

For a medical device, whether it be a drug delivery pen or a surgical tool, repeatable and efficient motion is critical to performance. The friction between moving parts can impact perceived value and adoption by healthcare specialists and consumers. LUBRICOMP and LUBRILOY compounds can help deliver the performance required.



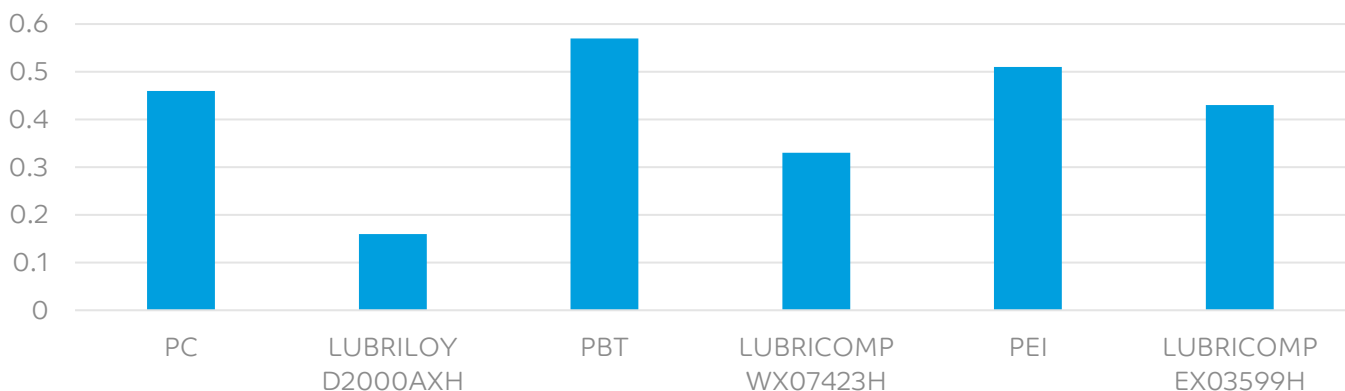
A GROWING LIST OF DEMANDS

The demand for wear and friction materials for medical devices is growing. Parts need to also withstand evolving sterilization and cleaning techniques, smaller, thinner, and lighter weight design requirements, as well as meet the market trend towards more consumer-friendly styling and colors.

INTERNALLY LUBRICATED COMPOUNDS

Adding an internal lubricant to thermoplastic materials can reduce the COF between parts. Medical grade silicone lubricated compounds and proprietary alloys like LUBRILOY D2000AXH compound can emulate the tribological performance and colorability of traditional lubricated materials while avoiding use of PTFE.

DYNAMIC COEFFICIENT OF FRICTION (COF)



EXAMPLE APPLICATIONS

- Surgical stapler internals
- Laparoscopic surgical tool internals
- Trocar latches
- Insulin pen dials, screw, and sleeve
- Inhaler dose counter buttons
- Fluid coupling quick disconnect

LUBRICATED COMPOUNDS FOR HEALTHCARE APPLICATIONS

	GRADE	DESCRIPTION	FEATURES
SUPER STRUCTURAL	LUBRICOMP DCI06APW	PC Copolymer, 30% carbon fiber (CF), silicone	FM: 20.6 GPa, non-halogenated lubricant, thin wall, low friction, Biocompatibility assessed
	LUBRICOMP EX10405H	Carbon fiber reinforced, PFPE	FM: 17.3 GPa, Improved slip-stick, USP Class VI lubricant
STRUCTURAL	LUBRICOMP WFL34H	PBT, 20% glass fiber (GF), 15% PTFE	FM: 7.5 GPa, low wear and COF, chemical resistance
	LUBRICOMP DFL34EH	PC, 20% GF, 15% PTFE	FM: 6.2 GPa, low wear and COF
	LUBRILOY DF206XXH	Alloy lubricated PC, 30% GF	FM: 7.6 GPa; non-halogenated lubricant, low wear and COF
NON-STRUCTURAL	LUBRICOMP EX03599H	PEI, PFPE	HDT: 213C, Improved slip-stick, lower COF than other high temp amorphous materials, USP Class VI lubricant
	LUBRILOY D2000AXH	Alloy lubricated PC	Non-halogenated, good impact, surface finish, low wear and COF, tight dimensional tolerance
	LUBRICOMP DL003EXJ	PC, 15% PTFE	Low wear and COF, tight dimensional tolerance
	LUBRICOMP DI001PXH	PC, Silicone	Non-halogenated, low COF, short break-in, tight dimensional tolerance
	LUBRICOMP DX07404H	PC, PFPE	Improved slip-stick, low squeak, lower COF vs generic PC, USP Class VI lubricant
	LUBRILOY K2000XXH	Alloy lubricated POM	Non-halogenated, low wear and COF, chemical resistant

Select PC resin compounds can be formulated with bio-sourced materials.

Select PBT resin compounds can be formulated with chemically upcycled LNP ELCRIN™ iQ PBT.

CONTACT INFORMATION

SABIC SPECIALTIES BUSINESS

AMERICAS

E: Specialties.Americas@sabic-hpp.com
T: +1 800 845 0600

ASIA PACIFIC

E: Specialties.Asia@sabic-hpp.com
T: +86 400 833 1033

EUROPE

E: Specialties.EMEA@sabic-hpp.com
T: +36 1 288 3040

<https://materialfinder.sabic-specialties.com>

DISCLAIMER: Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right. SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates, unless otherwise noted.

© 2024 Saudi Basic Industries Corporation (SABIC). All Rights Reserved.