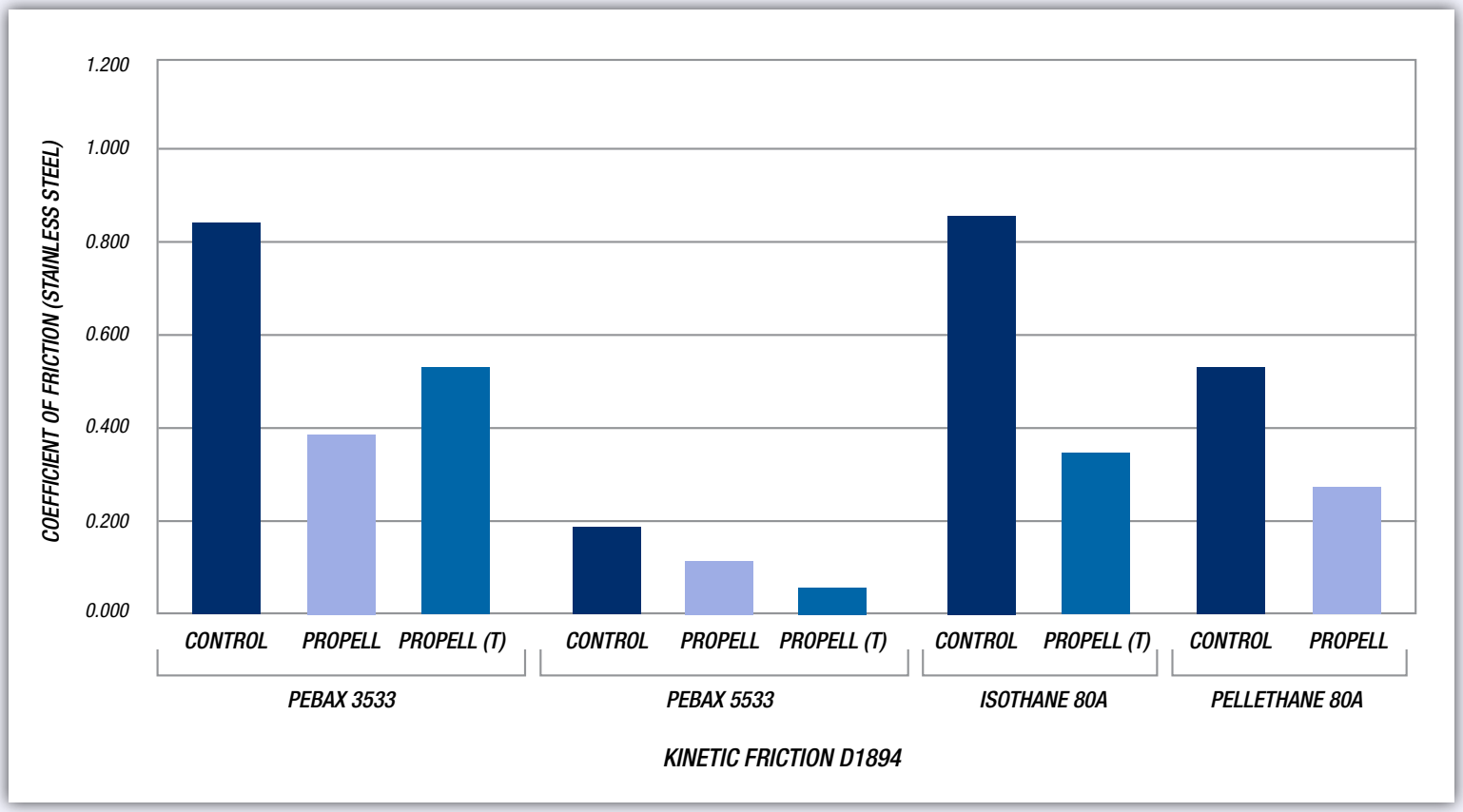
ProPell™ Low Friction Compounds

Foster ProPell™ Low Friction Compounds incorporate proprietary surface enhancing additives into a wide range of medical grade polymers to reduce inherently high coefficient of friction, while retaining desired mechanical properties. These unique compounds improve manufacturing and application performance by substantially reducing tackiness of medical device components, including catheter tubing. Foster ProPell™ Low Friction Compounds are suitable for extrusion and injection molding applications.

Due to wide variety of medical applications, and variabilities within each, Foster custom formulates ProPell™ based on each application requirements. These formulations can be opaque or translucent for applications where fluid visibility or color is critical. Foster also custom formulates surface modifications to account for the type of bonding or other post-processing steps that will be used. Though the formulations are custom, all components have been tested and passed USP Chapter 88 Class VI Biological Reactivity studies.

The graph below outlines the results of a kinetic coefficient of friction study, conducted by Foster Corporation on ProPell™ opaque and translucent (T) formulations. The evaluations were conducted under dry conditions, against stainless steel. Other mechanical properties were also measured.



PROPELL™ LOW FRICTION COMPOUNDS												
			PEBAX** 3533			PEBAX** 5533			ISOTHANE*** 80A		PELLETHANE+ 80A	
PROPERTY	ASTM	UNITS	CONTROL	PROPELL	PROPELL (T)	CONTROL	PROPELL	PROPELL (T)	CONTROL	PROPELL (T)	CONTROL	PROPELL
STATIC FRICTION	D1894	–	0.830	0.322	0.364	0.197	0.087	0.096	1.133	0.316	0.556	0.439
KINETIC FRICTION	D1894	–	0.827	0.392	0.521	0.179	0.112	0.066	0.853	0.326	0.507	0.262
TENSILE STRENGTH	638	PSI	4,739	5,580	4,298	7,942	4,112	5,562	3,316	2,702	5,435	7,170
TENSILE ELONGATION	638	%	1,220	825	1,125	746	381	523	591	734	550	530
TENSILE MODULUS	638	PSI	1,694	1,670	1,831	18,661	25,629	20,905	1,840	1,706	1,820	1,790
TRANSMITTANCE*	–	%	90	N/A	75	78	N/A	67	91	67	N/A	N/A

*The amount of light that passes through a 4mm plaque without being scattered.

**Pebax is a registered trademark of Arkema. ***Isothane is a registered trademark of GRECO. +Pellethane® is a registered trade mark of Lubrizol.
Contact Foster Corporation for information on a wider range of ProPell™ materials.

FOSTER

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