



Friction Factors Between Material and Product							
Operating Condition	Product Material						
	Aluminum	Returnable Glass Bottles**	Non-Returnable Glass Bottles	Paper	Plastic (crates, shrink wrap, etc)	PET	Steel
Dry	0.20	0.20	0.15	0.30	0.20	0.20	0.25
Water	0.15	0.18	0.13	NR	0.18	0.18	0.20
Soap and Water	0.12	0.14	0.10	NR	0.15	0.15	0.15
Oil	---	---	---	NR	---	---	0.10

[illegible]

**Friction of returnable bottles will vary depending on the quality of the glass, the amount of roughed up surface, etc.