Sol M Building a Healthier Tomorrow®

Insulin Syringe
Competitive Analysis

solm.com

Performance Area	What It Means	Sol-M	Competitor 1	Competitor 2	Competitive Takeaway
Needle Dimensional Accuracy	How closely the needle's diameter and length match ISO specifications — affects fit, flow, and reliability	☑ ISO compliant, consistent	☑ ISO compliant	☑ ISO compliant	All brands comparable
Dead Space	The small amount of fluid left in the syringe/needle after full injection — lower = less medication waste	☑ Low, within ISO	☑ Low, within ISO	☑ Low, within ISO	All brands comparable
Dose Accuracy (12 & 18 IU)	How precisely the syringe delivers the intended insulin units based on scale markings	☑ Within ISO tolerance	☑ Within ISO tolerance	☑ Within ISO tolerance	All brands comparable
Penetration Force	The force required for the needle to pierce the membrane/skin — lower = easier, more comfortable insertion	★ Lowest	Low-moderate	Highest	Sol-M advantage — smoother insertion
Needle Drag Force	The resistance while the needle continues moving through material after puncture — lower = smoother glide	Low	Low	Higher	Sol-M advantage vs Competitor 2
Plunger Initiation Force	The force needed to start the plunger moving (break-loose force) — lower = easier to begin the delivery	★ Much lower	Moderate	Higher	Strong Sol-M advantage — easier start delivery
Average Injection Movement Force	The ongoing force needed to keep pushing medication during injection — lower = smoother delivery control	★ Lowest	Moderate	Higher	Sol-M advantage — smoother delivery
Cap Removal Force	The pull force required to remove the needle cap — balance needed between safety and when not in use	Moderate-high	Lowest	Moderate-high	Sol-M has balanced safety usability
Force Consistency (Std Dev)	How much test results vary from unit to unit — lower variation = more consistent user experience	Good	Good	More variability in some tests	Sol-M is reliable and consistence edge