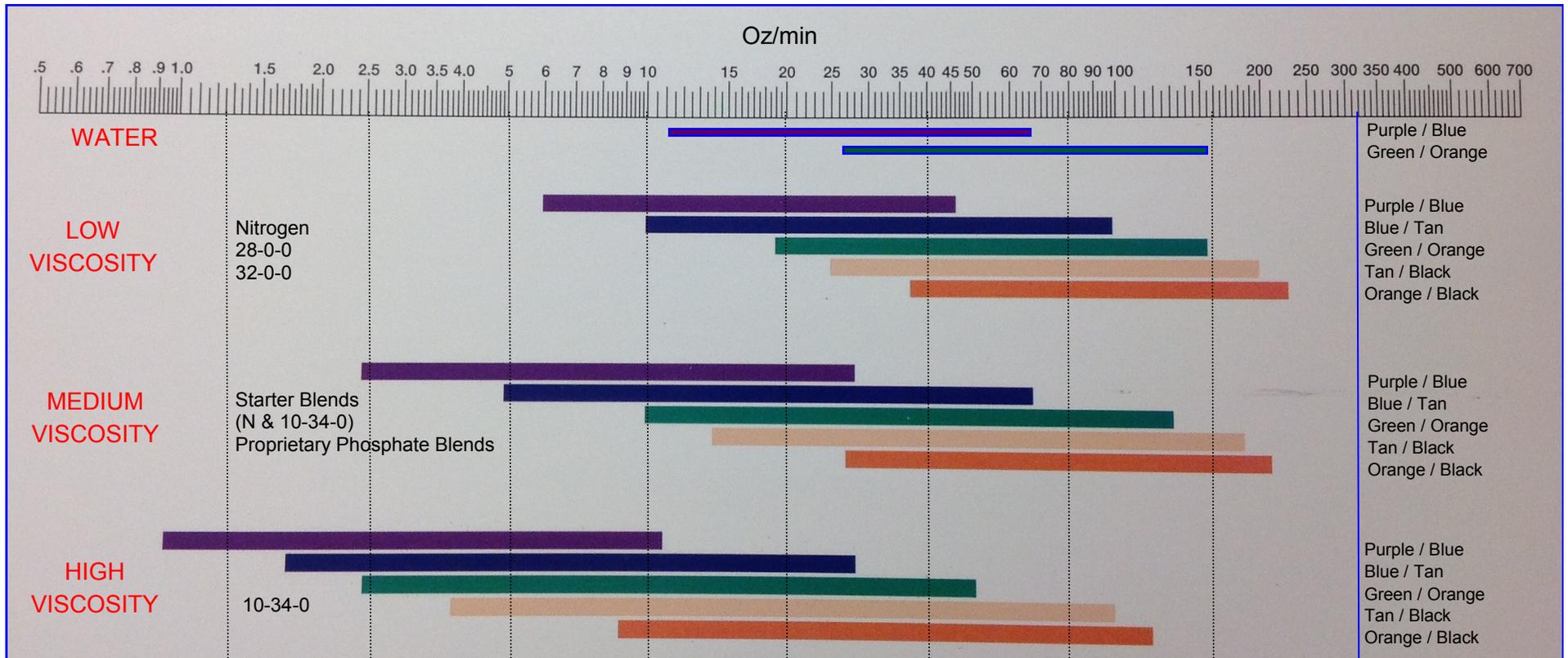




SureFire LiquiShift® Tube Selector



RELATIVE VISCOSITY—“Low”, “Medium”, and “High” are *relative viscosity* terms. There will be variation within each group depending on the actual viscosity of the product at the time of application. Some products may fall between the viscosity distinctions shown here. Individual products themselves will vary from time to time, especially as the temperature changes. The bars for 10-34-0 are for 60°. At 40° the flow will be substantially less. The lower viscosity products are not affected as much by temperature.

The flows shown above are for a pressure range from 10 to 65 PSI. Pressures and flows in any system may vary from those shown here depending on the actual viscosity of the product and other pressure drops in the system that are not related to the metering tube. Some systems may achieve flows higher than shown here by operating at higher pressure. The SureFire hydraulic pumps are equipped with a 100 PSI pressure relief valve. The system may be operated at 90-95 PSI without harming any components.

This chart is for typical 8' lengths of metering tube. A 5' Tan / Black or 5' Orange / Black combination may be used when higher rates are needed.

Tube combinations are selected to provide as wide a range as possible, while still providing adequate overlap between tubes so the system does not get into an area where it constantly switches back and forth between the small tube and the large tube when no rate change is called for. The Tan/Black combination offers a wider range than the Orange / Black, but does not have as much overlap between tubes.

The length of the bars above also shows another aspect of liquid flow through metering tube—laminar flow and turbulent flow. The bars for the lower viscosity products are shorter than the corresponding bars for a higher viscosity product due to the higher viscosity product having a higher degree of laminar flow and the lower viscosity product having more turbulent flow. With laminar flow a given pressure increase results in a greater relative flow increase than would the same pressure increase with turbulent flow. (Note: These bars are drawn on a logarithmic scale to indicate *relative* rather than *absolute* flow differences.)