

STEP LG, or linear gel, is a fracturing system intended to provide a small amount of viscosity to the fluid to provide some proppant suspension, and to create increased fracture widths between the thin fractures created by slickwaters and the thick fractures created by crosslinked fluids.

STEP LG is typically made up of the gellant SWG-201, a derivatized guar polymer. Either the liquid version, SWG-201L, or the solid version can be used in conjunction with a dry-add hydration unit. This provides the benefit of rapid hydration and a clean, low residue break. This is also compatible with STEP's clay control additives, scale inhibitors, and most potential additives.

**Operational Benefits:**

- Hydrates rapidly to form a viscous linear gel
- Easy to mix, no formation of fish eyes
- Compatible with most chemical additives
- Clean gel, little to no residue upon breaking

**Technical Data:**

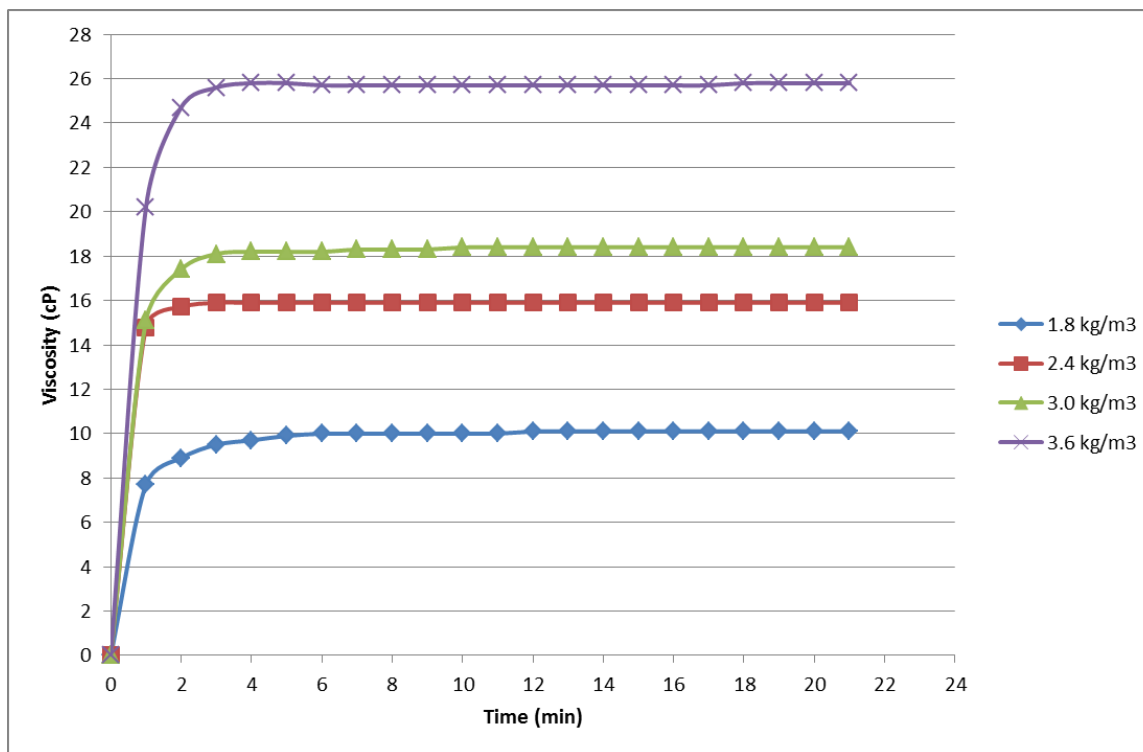


Figure 1: Hydration of various loadings of SWG-201

Temperature (°C)	Gel Loading (per m <sup>3</sup> )	Breaker Loading
20	3.0kg (6.4 L)	0.3 L/m <sup>3</sup> SBE-1
	3.6 (7.7 L)	0.4 L/m <sup>3</sup> SBE-1
30	3.0kg (6.4 L)	0.2 L/m <sup>3</sup> SBE-1
	3.6 (7.7 L)	0.25 L/m <sup>3</sup> SBE-1
40	3.0kg (6.4 L)	0.1 L/m <sup>3</sup> SBE-1
	3.6 (7.7 L)	0.1 L/m <sup>3</sup> SBE-1
50	3.0kg (6.4 L)	0.4 kg/m <sup>3</sup> SBO-1
	3.6 (7.7 L)	0.5 kg/m <sup>3</sup> SBO-1
60	3.0kg (6.4 L)	0.3 kg/m <sup>3</sup> SBO-1
	3.6 (7.7 L)	0.3 kg/m <sup>3</sup> SBO-1
70	3.0kg (6.4 L)	0.1 kg/m <sup>3</sup> Encap LT
	3.6 (7.7 L)	0.1 kg/m <sup>3</sup> Encap LT
80	3.0kg (6.4 L)	0.1 kg/m <sup>3</sup> Encap HT
	3.6 (7.7 L)	0.2 kg/m <sup>3</sup> Encap HT
90	3.0kg (6.4 L)	0.1 kg/m <sup>3</sup> Encap HT
	3.6 (7.7 L)	0.1 kg/m <sup>3</sup> Encap HT

Figure 2: Proposed Breaker Loadings of STEP-LG