

**Gel Time vs. Temperature
for
Clearco Pure Dimethyl Silicones and Phenylmethyl Silicones**

Gel Time at Temperature (open system)					
Fluid	149°C (300F)	204°C (400F)	250°C (482F)	260°C	300°C
PSF-100cSt	Approx 1-year	250 to 300 hours	40 to 60 hours	20 to 25 hours	<24 hours
PSF-1,000cSt	Approx 1-year	175 to 225 hours	20 to 30 hours	<15 hours	
PSF-10,000cSt	Approx 1-year	100 to 120 hours	15 to 20 hours	<10 hours	
PM-125 (medium-content phenymethyl)	++ 1-year	>5,000 hours	1,000 – 1,500 hours	200 hours	> 100 hours
PPM-500 (hi-content phenymethyl)		>5,000 hours	>3,000 hours		480 hours

Pure Silicones are 100% Polydimethylsiloxanes (CAS # 63148-62-9)

- Gel times for the PSF fluids are virtually identical from 50cSt to 100,000cSt

Viscosities lower than 50cSt have lower flash points and lower service temps

- Low viscosities are not recommended for thermal baths.

When methyl groups are replaced with phenyl groups, thermal stability is significantly increased.

- PPM-500 has approx 98% Phenylmethyl content and is recommended for baths with temps exceeding 250°C.

Closed System gel times are much higher due to the absence of oxygen.

Clearco Products recommends using a phenyl-based silicone fluids for open system applications over 200°C.