

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
DPDM-400 Diphenyl-Dimethylsiloxane	++ 1-year	>5,000 hours	1,500 hours	200 + hours	> 100 hours
PM-125 (Medium-content phenylmethyl)	++ 1-year	>5,000 hours	1,000 – 1,500 hours	200 hours	> 100 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 5cSt have lower flash points and lower service temps

- Low viscosities are not recommended for high temperature baths.

DPDM-400 and PM-125 are high phenyl content silicones. When methyl groups are replaced with phenyl groups, thermal stability and resistance to oxidation are significantly increased.

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.