

Technical report for KEG2000 series

(KE2000 series and KEG2000 series)

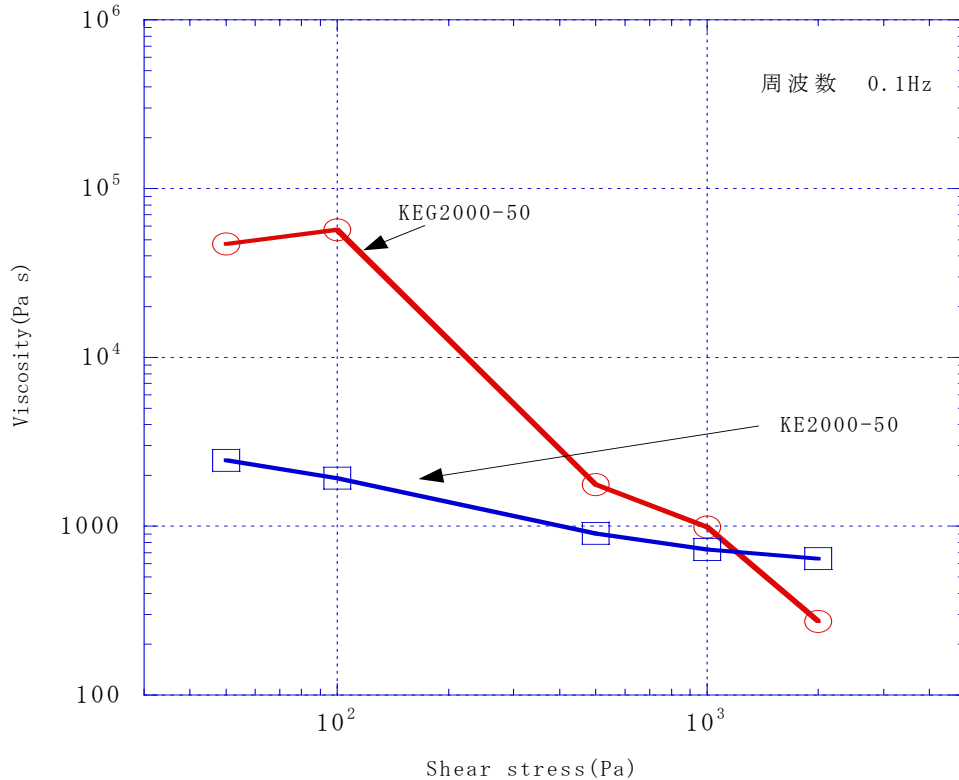
Features for KEG2000 series (compared with KE2000 series)

The KE2000 series was developed as a fast cure version of the KE1950 series and has excellent properties for flashless and runnerless molding..

The KEG2000 series has the same excellent injection molding properties as the KE2000 series, along with improved handling and molding properties.

Injection molding and handling properties

Shear stress Vs. Viscosity (KEG2000-50/KE2000-50)



Generally, Pumping pressure requires low shear stress and Injection pressure needs high shear stress, so the KEG2000 series is designed to have high viscosity under low shear stress and also low viscosity under high shear stress.

Therefore the following properties were improved in the Nipple molding test using an injection machine.

Molding properties

KEG2000 series has a good gate-balance and is easily adjusted to the molding condition. It also has excellent mold release properties.

Handling properties

When the material was changed, there was no issue with loss of pressure and was easily handled, which was due to the high viscosity properties.

Physical properties List of KE2000 and KEG2000 series

	KE2000-40A/B	KEG2000-40A/B	KE2001-40A/B	KEG2001-40A/B
Appearance A/B	Translucent	Translucent	Translucent	Translucent
Viscosity A/B (Pa.s)	500/500	1400/1400	500/500	1300/1300
Cure ratio @ 302F T10/T90 (sec)	31/38	31/42	20/32	23/32
Specific Gravity	1.12	1.13	1.12	1.12
Hardness (Shore-A)	42	40	42	40
Elongation (%)	600	680	550	650
Tensile strength (Psi)	1335	1509	1364	1407
Modulus@ 100% (Psi)	159	178	158	182
Tear strength Die-B (ppi)	171	200	171	194

	KE2000-50A/B	KEG2000-50A/B	KE2000-60A/B	KEG2000-60A/B
Appearance A/B	Translucent	Translucent	Translucent	Translucent
Viscosity A/B (Pa.s)	1000/1000	1700/1600	600/600	1600/1600
Cure ratio @ 302F T10/T90 (sec)	35/47	35/45	35/46	35/48
Specific Gravity	1.12	1.13	1.14	1.14
Hardness (Shore-A)	52	51	60	58
Elongation (%)	550	540	460	440
Tensile strength (Psi)	1422	1567	1393	1320
Modulus@ 100% (Psi)	262	249	306	357
Tear strength Die-B (ppi)	200	240	200	268

	KE2000-70A/B	KEG2000-70A/B	KEG2000-75A/B
Appearance A/B	Translucent	Translucent	Translucent
Viscosity A/B (Pa.s)	1500/1400	1700/1600	600/600
Cure ratio @ 302F T10/T90 (sec)	29/43	35/48	35/51
Specific Gravity	1.12	1.13	1.15
Hardness (Shore-A)	69	68	78
Elongation (%)	320	420	240
Tensile strength (Psi)	1248	1480	1393
Modulus@ 100% (Psi)	676	647	818
Tear strength Die-B (ppi)	228	211	40

Press cure: 5min@ 302F

Post cure : 2hrs@ 302F