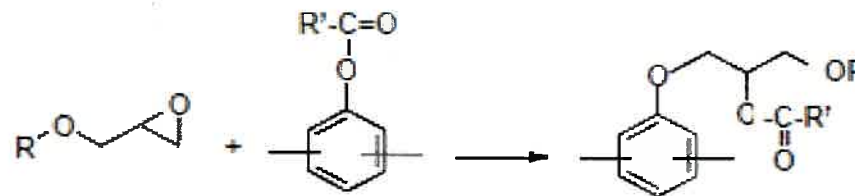


Low Dk/Df Hardener Line up

- High heat resistance
- Low water absorption
- **Ultra low Dk and Df character**
- Chemical and mechanical properties



Grade	Ester.E.W [g/eq]	S.P [°C]	NV [wt%]	Viscosity [cps @ 25°C]	Solvent Type	Stage	Equivalent Grade
SHC-5100T65	223	150 – 160	64 – 66	500 – 4,000	Toluene	Commercial	DIC, HPC-8000
SHC-5300TM65	235	145 – 155	64 – 66	2,500 max.	Toluene + MEK	Lab	-
SHC-5200TM65	248	158 – 168	64 – 66	3,000 max.	Toluene + MEK	Commercial	-
							Middle Tg Grade
SHC-5600TM65	238	158 – 168	64 – 66	2,500 max.	Toluene + MEK	Commercial	-
SHC-5800TM65	211	162 – 172	64 – 66	4,000 max	Toluene + MEK	Lab	-
							High Tg Grade
SHC-5900TM65	225	152 - 162	64 – 66	2,500 max	Toluene + MEK	Lab	-
SHC-4314M65	278	125 – 135	64 – 66	1,000 max	MEK	Pilot	-
							Low Cost Grade
SHC-4305M65	238	120 – 130	64 – 66	1,000 max	MEK	Pilot	-



Request TDS for more information

Physical properties of Hardener Resin

➤ Cured properties of Ester Hardener

	Counter		Middle-Tg Grade		High-Tg Grade		Low Cost Grade	
Hardener	SHC-5100T65	SHC-5300TM65	SHC-5200TM65	SHC-5600TM65	SHC-5800TM65	SHC-5900TM65	SHC-4305M65	SHC-4314M65
Epoxy	DCPD Epoxy							
Catalyst	DMAP 0.3 phr							2E4MZ 0.5phr
Gel time [sec@180°C]	135	95	95	110	94	91	193	142
Tg [°C]	167	168	165	179	193	188	156	150
Dk [1GHz]	2.9	2.76	2.89	2.82	2.86	2.83	2.9	2.95
Df [1GHz]	0.0085	0.007	0.0088	0.0079	0.010	0.008	0.009	0.010

