

## Polymers for Adhesive and Sealant Manufacture. SMP Overview

### GENIOSIL® SILANE MODIFIED POLYMERS

Product	Specifics	Example Applications	Viscosity (mPa·s, 25 °C)	Molecular weight	Flash point °C	Ignition temperature °C	
ALPHA POLYMERS	GENIOSIL® STP-E10	Dimethoxy-silyl-terminated polyether	Multipurpose tin-free assembly adhesives	~ 10,000	Medium	98	390
	GENIOSIL® STP-E30	Dimethoxy-silyl-terminated polyether	Polymer designed for low-modulus transparent formulation	~ 30,000	High	107	380
	GENIOSIL® XB 502	Dimethoxy-silyl-terminated polyether reinforced with silicone moieties	Strong bonding adhesives in Shore D range	~ 1,000	Medium	> 100	380
	GENIOSIL® XT 50	Dimethoxy-silyl-terminated polyether reinforced with silicone moieties	High strength adhesives with outstanding tear propagation resist [ $> 30\text{N/mm}$ ] or for strong transparent membranes	~ 500	Medium	> 105	380
	GENIOSIL® WP 1	Hydrophobically modified dimethoxy-silyl-terminated polyether	Waterproofing liquid membranes	~ 700	Medium	95	300
	GENIOSIL® XM 20	Monofunctional dimethoxy-silyl-terminated polyether	Plasticizer-free adhesives where migration is an issue	~ 2,000	Low	156	379
	GENIOSIL® XT 120	Dimethoxy-silyl-terminated polyether reinforced with silicone moieties	Barrier coatings & HM adhesives	~ 140	Low	97	391
GAMMA POLYMERS	GENIOSIL® STP-E15	Trimethoxy-silyl-terminated polyether	Elastic adhesives	~ 10,000	Medium	> 250	390
	GENIOSIL® STP-E35	Trimethoxy-silyl-terminated polyether	Elastic Sealants where elastic recovery is desirable	~ 30,000	High	> 100	> 350
	GENIOSIL® XT 55	Trimethoxy-silyl-terminated polyether reinforced with silicone moieties	High strength adhesives with outstanding tear propagation resist [ $> 30\text{N/mm}$ ] and recovery if desirable	~ 1,000	High	> 110	380
	GENIOSIL® SX 25	Trimethoxy-silyl-terminated polyether	Designed for low modulus elastic sealants and plasticizer-free adhesives	~ 8,000	Medium	> 180	380
	GENIOSIL® XM 25	Monofunctional trimethoxy-silyl-terminated polyether	Plasticizer-free sealant & adhesives where migration is an issue; dedicated for sealants	~ 2,000	Low	167	377
	GENIOSIL® SMP 100	Trimethoxy-silyl-terminated polyester	Tough, scratch-resistant coatings	~ 2,000	Low	93	410

GENIOSIL® ADDITIVES							
Product		Structure	Special features	Viscosity (mPa-s; 25 °C)	Molecular weight	Flash point °C	Ignition temperature °C
GENIOSIL® STABILIZERS	GENIOSIL® STABILIZER T	Stabilizer package	Designed for transparent waterproofing, adhesive or sealant formulations	200	Low	28	236
	GENIOSIL® STABILIZER F	Stabilizer package	Designed for filled waterproofing, adhesive or sealant formulations	400	Low	23	249
Product		Structure	Special features	Molecular weight (g/mol)	Boiling point (°C, 1013 hPa)	Density (g/cm <sup>3</sup> at 20 °C)	Flash point °C
ADHESION PROMOTERS	GENIOSIL® GPTM	Glycidoxypropyltrimethoxy silane	Adhesion promoter, epoxy, trimethoxy	236.3	248	1.07	122
	GENIOSIL® DAPTM	Aminoethyl-aminopropyl-trimethoxy silane	Adhesion promoter, diamino, trimethoxy	222.4	147 (16 hPa)	1.02	> 100
	GENIOSIL® APTE	Aminopropyl-triethoxy silane	Adhesion promoter – ethoxy	221.4	217	0.94	93
	GENIOSIL® DAPDM	Aminoethyl-aminopropyl	Adhesion promoter, diamino, trimethoxy	206.4	253	0.98	> 100
	GENIOSIL® APTM	Aminopropyl-trimethoxy silane	Adhesion promoter – methoxy; favoured where yellowing an issue	179.3	210	1.01	79
WATER SCAVENGERS	GENIOSIL® VTM	Vinyltrimethoxy silane	Traditional Scavenger for SMP formulations	148.2	122	0.97	25
	GENIOSIL® PTM	Phenyltrimethoxy silane	Scavenger for SMP formulations where higher flashpoint desirable	198.2	220	1.06	96