

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® 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® ORGANOFUNCTIONAL SILANES

Product		Structure	Special features	Molecular weight (g/mol)	Boiling point (°C, 1013 hPa)	Density (g/cm ³ at 20 °C)	Flash point °C
ADHESION PROMOTERS	GENIOSIL® GF 80	Glycidoxypropyltrimethoxy silane	Adhesion promoter, epoxy, trimethoxy	236.3	248	1.07	122
	GENIOSIL® GF 9	Aminoethyl-aminopropyl-trimethoxy silane	Adhesion promoter, diamino, trimethoxy – outstanding adhesion profile	222.4	> 147 (16 hPa)	1.03	> 100
	GENIOSIL® GF 91	Aminoethyl-aminopropyl-trimethoxy silane	Distilled version of GF 9	222.4	147 (16 hPa)	1.02	> 100
	GENIOSIL® GF 93	Aminopropyl-triethoxy silane	Adhesion promoter – ethoxy	221.4	217	0.94	93
	GENIOSIL® GF 995	Aminoethyl-aminopropylmethyltrimethoxy silane – hydrolysed	Adhesion promoter, diamino, dimethoxy for strong bonding formulations	oligomeric	Not determined	1.06	208
	GENIOSIL® GF 96	Aminopropyl-trimethoxy silane	Adhesion promoter – methoxy; favoured where yellowing an issue	179.3	210	1.01	79
WATER SCAVENGERS	GENIOSIL® XL 10	Vinyltrimethoxy silane	Traditional Scavenger for SMP formulations	148.2	122	0.97	25
	GENIOSIL® XL 70	Phenyltrimethoxy silane	Scavenger for SMP formulations where higher flashpoint desirable	198.2	220	1.06	96

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