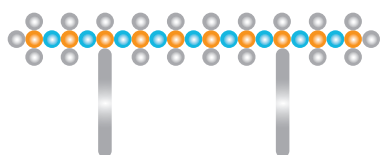


# Milliken® Specialty Silicones

## SILICONE ELASTOMER MODIFIERS

Milliken uses basic chlorosilanes to manufacture a wide variety of silane, silazanes, siloxanes and MQ resins. We have the capabilities to tailor hydride and vinyl containing silicones by fine-tuning variables such as Molecular Weight, Functionality, Functionality Concentration and Position to meet specific customer requirements. Milliken has over 60 years of experience in providing rapid and confidential support to safely scale up such custom projects from lab to multi-ton production.



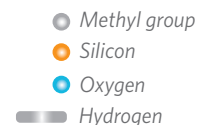
**Comb-like**

Hydride crosslinkers are comb type (DMH-5A)



**Linear**

Hydride chain extenders are linear type.



**Hydride Crosslinkers** are used to increase durometer (hardness) and tear strength of Platinum Addition Cure Silicone Elastomers. For the Linear Hydrides (MDmDHnM), Milliken can produce products with a total m+n up to -30. Volatile content, flash point, and residual D4 may also be tailored to meet customer specifications.

Product	Type	SiH (mmol/g)	Weight % H	Attributes	Product Code
DMH-5A	Linear Hydride MDmDHnM	7.25	0.725	Excellent synergy with chain extenders to increase tear and elongation	3000064026
MQH-8 MQ Hydride Resin, Neat	Resin Hydride	8.0	0.80	Increases durometer and tear strength	3000064029
MQH-9 MQ Hydride Resin, Neat	Resin Hydride	9.5	0.95	Increases durometer and tear strength	3000063726
Phenyltris (dimethylsiloxy) silane	Specialty Hydride - T Resin	11.8	1.18	Improves all physical properties and increases cure speed	3000063622

**Hydride Chain Extenders** (also called Coupling Hydrides) are used to increase tear strength and elongation of Platinum Addition Cure Silicone Elastomers. For the MHDXMH series, Milliken has the capabilities to readily produce from X=0 up to X-30. Volatiles content, flash point, and D4 content may also be tailored to meet customer specifications.

Product	SiH (mmol/g)	Weight % H	Product Code
MHD0MH (Tetramethyldisiloxane)	14.9	1.49	3000063809
MHD3.5MH	5.1	0.51	3000064128
MHD6MH	3.5	0.35	3000063716
MHD10MH (DH-6)	2.4	0.24	3000063721
MHD25MH	0.9	0.09	3000063932

### Vinyl Polymers

Product	Viscosity (cPs)	SiV (mmol/g)	Product Code
Vinyl Polymer 100	100	0.37	3000121991
Vinyl Polymer 200	200	0.24	3000121967
Vinyl Polymer 400	400	0.18	3000121966
Vinyl Polymer 1000	1,000	0.11	3000121965
Vinyl Polymer 2000	2,000	0.08	3000121964
Vinyl Polymer 5000	5,000	0.05	3000121963
Vinyl Polymer 10000	10,000	0.04	3000121962
Vinyl Polymer 20000	20,000	0.03	3000121961
Vinyl Polymer 65000	65,000	0.02	3000121960

**Vinyl Resins** are used to increase durometer (hardness) and tear strength of Platinum Addition Cure Silicone Elastomers. Milliken is capable of producing Vinyl Resins with different molecular weight ranges and SiV concentrations.

Product	Type	SiV (mmol/g)	Weight % Vi	Product Code
MQV-7 MQ Vinyl Resin, Neat	Neat Resin	3.4	9.2	3000063838
MQV-6 MQ Vinyl Resin in Xylenes	In Solvent (50% Xylenes)	0.9/g solid	2.4	3000063737

**Vinyl Polymer / Vinyl Resin Blends** are used to increase durometer (hardness) and tear strength of Platinum Addition Cure Silicone Elastomers. Milliken is able to produce custom blends of Vinyl MQ Resins with vinyl polymers based on customer requirements.

Product	Description	Product Code
Prosil 9932	60/40 blend of 10,000 cps vinyl polymer with MQV-6	3000096348
Prosil 9929	75/25 blend of 5,000 cps vinyl polymer with MQV-6	Experimental

**Phenyl Materials** are useful to increase refractive index, thermal stability, physical strength and toughness of silicone elastomer formulations. Milliken has the capabilities to produce a wide variety of phenyl containing compounds and resins based on customer requirements.

Product	Type	Functionality	mmol/g	Product Code
Phenyltris(dimethylsiloxy)silane	Specialty Hydride - T Resin	Hydride	9.1	3000063622
MHT-Phenyl Resin	Specialty Hydride - T Resin	Hydride	~3.8	Experimental
Diphenyldivinyltrisiloxane	Specialty Vinyl Chain Extender	Vinyl	5.2	3000064416
MvT-Phenyl Resin	Specialty Vinyl Chain Crosslinker	Vinyl	~2.5	3000064289

**Silanol Resins** are used in 2 Component RTV or any other Silanol Condensation to increase tensile and tear strength. Milliken is able to manufacture Silanol Resins with a range of molecular weights and SiOH content.

Product	Weight % SiOH	Product Code
MQOH-6 MQ Silanol Resin, Neat	~0.1% SiOH	3000098331
MQOH-7 MQ Silanol Resin, Neat	~0.2% SiOH	3000063919

### Vinyl Chainstoppers

Vinyl Chainstoppers are used for making vinyl end-capped polymers

Product	SiV (mmol/g)	Weight % Vi	Product Code
Divinyltetramethyldisiloxane	10.7	29.0	3000063785
MVD8MV	2.5	6.8	3000064056

**Silazanes** are used to treat silica fillers to make them more hydrophobic

Product	CAS Number	Product Code
Hexamethyldisilazane	999-97-3	3000063628
Divinyltetramethyldisilazane	7691-02-3	3000063790



Contact us for more information  
[chemical.milliken.com/contactus](https://chemical.milliken.com/contactus)

Please contact your Milliken representative for further product information including chemical registrations, food contact status, and other regulatory details.

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