



TSE Industries, Inc.
Millathane® Millable Polyurethane
 4370 112th Terrace North
 Clearwater, FL 33762 (USA)
 (+1) 727-573-7676 or 800-237-7634 www.tse-industries.com



Millathane® Millable Polyurethanes Polymer Selector Guide

Compounds based upon Millathane solid (millable) urethanes have excellent abrasion resistance and physical properties, along with excellent oil and ozone resistance. Polyester types are generally better for oil resistance and heat aging, while polyether types are generally better for water resistance and low temperature properties.

Most Millathane grades are available in a range of viscosities, and are available as dense bales or Premilled sheets. Premilled polyester grades contain 1.5 phr of hydrolysis stabilizer. All grades are peroxide curable; sulfur curable grades are Millathane E34, E40, CM, 55, 76 and HT.

Typical Properties

	Density g/cc	Mooney Viscosity at 100°C*		Comments
		ML(1+4)	MS(1+10)	
Polyether Grades				
Millathane 26	1.03	30 – 60	—	Compliant with USA FDA regulation 177.2600; peroxide and isocyanate-curable
Millathane 55 <i>NEW!</i>	1.04	25 – 45	—	Lower viscosity but higher hardness than E34 for good processing, high hardness compounds
Millathane 97	1.02	30 – 70	—	Peroxide curable only; best for transparent or colored compounds (e.g., for footwear)
Millathane E34	1.04	35 – 60	—	Easy processing, excellent abrasion resistance; best overall Millathane grade for roller applications.
Millathane E40	1.07	35 – 55	—	Best for low temperature properties, lower viscosity than CM
Millathane CM	1.06	(approx. 60-120)	30 – 60	Higher viscosity than E34 and better low temp properties
Polyester Grades				
Millathane 76**	1.22	25 – 55	—	Excellent for oil resistance and strength properties; best for high damping
Millathane 66**	1.19	40 – 60	—	Peroxide curable only; best for heat and compression set resistance
Millathane 5004**	1.21	50 – 70	—	Peroxide curable only; best for oil and solvent resistance
Millathane HT**	1.12	50 – 65	—	Excellent low temperature properties and frictional characteristics

* Viscosity values shown are the lower and upper edges of the viscosity ranges of the lowest and highest viscosity grades sold.

** **Premilled** polyester Millathane grades, which contain 1.5 phr of a hydrolysis stabilizer, are recommended

Thanecure® Curatives

TSE produces two products that are used for vulcanization of millable urethane rubbers:

Thanecure ZM is a cure activator/accelerator for sulfur cured millable urethanes

Thanecure T9SF is a curative for isocyanate cured millable urethanes.

For additional information, visit our web site WWW.TSE-Industries.com or WWW.Millathane.com, or email us at MillathaneInfo@TSE-Industries.com

Millathane-selector-guide_R1.doc 2015-06-02_tj

The recommendations for the use of our products are based on tests believed to be reliable. However, we do not guarantee the results to be obtained by others under different conditions. Nothing in this literature is intended as a recommendation to use our products so as to infringe on any patent. Millathane® and Thanecure® are registered trademarks of TSE Industries, Inc.