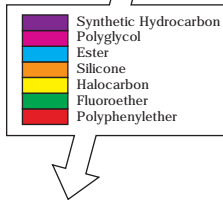
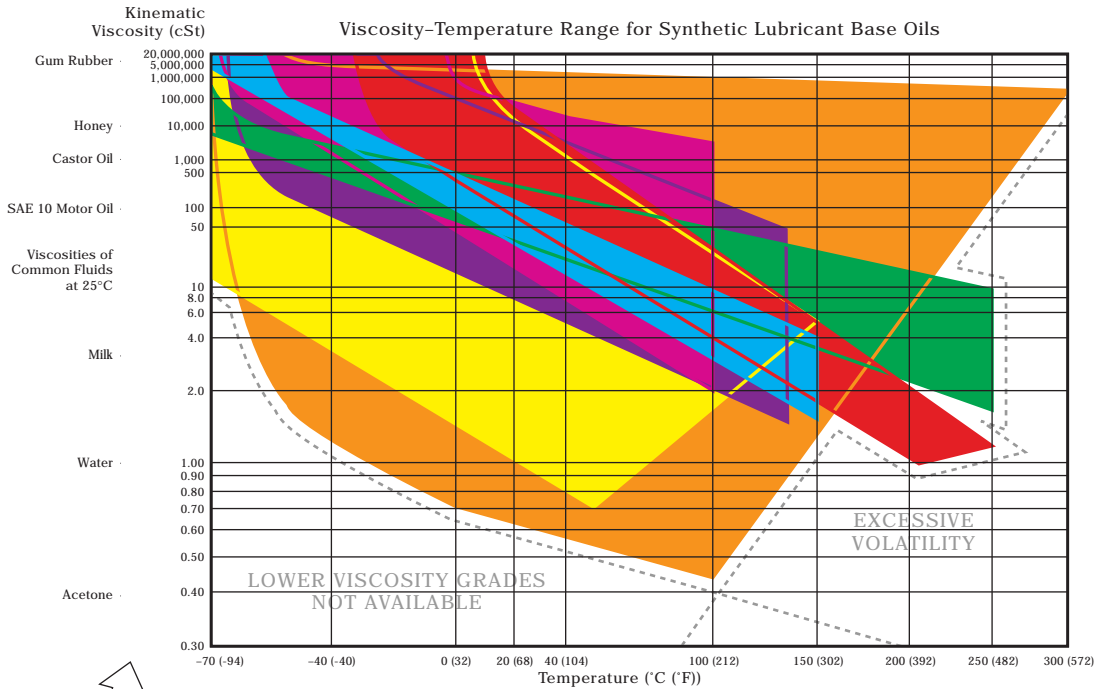


# Synthetic Oil Viscosity & Compatibility Chart



## Materials Compatibility of Synthetic Lubricant Base Oils

Plastic and Elastomer  
Compatibility for Base Oil Families

G Good  
F Fair  
P Poor

Solvent Compatibility  
for Base Oil Families

S Soluble in large fraction  
W Weakly soluble  
V Varies with grade  
I Insoluble

Base Oil Family	Plastic (see notes 1 and 4)																Elastomer (see notes 2 and 4)										Solvent (see notes 3 and 4)							
	Acetal	ABS	Phenolic	Polyamide-imide	Polyamide (nylon)	Polycarbonate	Polyester	Polyetherimide	Polyethylene	Polyimide	Polyphenylene oxide	Polystyrene	Polysulfone	PTFE	Polyvinyl chloride	Terephthalate	Buna S	Butyl	EPDM, EPR	Fluoroelastomer	Natural Rubber	Neoprene	Nitrile	Silicone	Water	Water plus detergent	Isopropanol	Methanol	Mineral Spirits	HFC-141b	Fluoroalkane	Hydrofluorocarbon	Hydrofluoroether	Halogenated Blends
<b>Synthetic Hydrocarbon</b> Includes: polyalphaolefin (PAO) Viscosity Index (VI) = 125-250 Good lubricity	G	G	G	G	G	G	G	F	G	G	F	G	G	F	G	P	P	P	G	P	G	G	F	I	W	W	I	I	S	S	I	I	I	V
<b>Polyglycol</b> a.k.a. polyether Viscosity Index (VI) = 160-220 Low S/lb	G	P	G	G	G	P	P	G	F	G	P	G	P	G	P	P	P	G	G	P	P	F	G	V	W	W	V	V	S	S	I	I	I	V
<b>Ester</b> Includes: diester, polyolester Viscosity Index (VI) = 120-150 Excellent lubricity, load carrying	G	P	G	G	G	P	P	G	F	G	P	P	P	G	P	P	P	F	G	P	P	F	F	I	W	I	I	I	S	S	I	I	I	V
<b>Silicone</b> Includes: dimethyl-, phenyl-, halogenated- Viscosity Index (VI) = 200-650 Excellent (low) volatility	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	P	I	W	I	I	I	S	S	I	I	I	V
<b>Halocarbon</b> Includes chlorotrifluoroethylene (CTFE) Viscosity Index (VI) = poor Chemical resist. load carrying, low temp.	G	G	G	G	G	G	G	G	G	G	G	G	G	P	G	P	P	G	P	P	G	P	P	I	W	I	I	I	S	S	S	S	S	S
<b>Fluoroether</b> a.k.a. perfluoropolyether (PFPE) Viscosity Index (VI) = 100-350 Excellent inertness, lubricity, temp. range	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	I	W	I	I	I	S	S	V	V	V	V
<b>Polyphenylether</b> a.k.a. PPE Viscosity Index (VI) = 40-60 Excellent lubricity, volatility, rad. resist.	G	P	G	G	G	P	P	G	F	G	P	P	P	G	P	G	P	P	F	G	P	P	F	I	W	I	I	S	W	I	I	I	V	

Note 1: For cross reference to trade names, consult Modern Plastics Encyclopedia, '97, McGraw-Hill Company, New York, 1997.  
 Note 2: For cross reference to trade names, consult Blue Book 1996; Lippincott & Peto, Akron, OH, 1996.  
 Note 3: Use of most organic solvents is subject to regulatory restrictions. Consult your plant safety officer for proper handling.  
 Note 4: Material compatibility can vary with mfgs. grade, lubricant grade, applied temp., and strain. Test in application prior to use. Consult Nye Lubricants for more information.