

SOLVENT SPEED

The speed of your retarder/reducer is stated as its evaporation rate. This is a number that is compared to N-Butyl Acetate which has an evaporation rate of 1.00. Reducers have evaporation rates greater than 1.00. The larger the number, the faster the speed. Retarders that have an evaporation rate of less than 1.00, the smaller the number, the slower the speed.

For clarity, a retarder is actually just a slow reducer. When adding a retarder to a finish, be sure you subtract that volume from the total volume of reducer that you would normally add to avoid over thinning the product. Check your manufacturers specifications for the maximum amount of retarder that you can add. There can be a point where too much can raise the sheen of your finish.

Solvent	Evaporation Rate	Flash Point Å°F
Acetone	5.7	-4
Ethyl Acetate	4.1	24
Methyl Ethyl Ketone (MEK)	3.8	16
Methanol	3.5	50
Toluene	2.0	45
VM&P Naptha	1.4	60
N-Butyl Acetate	1.0	24
Xylene	.7	80
Methyl Amyl Ketone (MAK)	.4	1.2
Mineral Spirits	.12	100
Propylene Glycol Butyl Ether (PnB)	.8	138
Butyl Cellosolve	.9	143
High Flash Naptha	..06	150

The **flash point** of a material is defined as the temperature at which an ignition source 1 cm from the surface of the liquid will cause ignition. The standard method is defined by ASTM and most flash points are measured in a "closed cup" flashpoint tester. Discrepancies/disagreements are found in the literature for some substances, but the values are usually fairly close