

Polymer Selection Guide for Pressure Sensitive Adhesives

Technology and Service On Demand



Mallard Creek Polymers, Inc has styrene butadiene emulsions which consist of a family of low viscosity products, systematically modified either by styrene/butadiene ratio, molecular weight or carboxylation. The styrene/butadiene ratio allows the formulator to choose a degree of softness of the polymer. Molecular weight allows greater latitude for use of other ingredients in the formulation and to obtain tack and shear. The use of carboxylation gives the opportunity to crosslink, improves mechanical stability of the wet adhesive and increased adhesion build on polar surfaces.

Our polymers are base emulsions which are compoundable into proprietary formulations by choice of tackifier dispersions, fillers, pigments, etc. These formulations successfully compete with natural and synthetic rubber solution PSAs in many label and tape applications.

Acrylic polymers are also available for use in PSAs to provide excellent clarity and protection against UV rays.



Polymer Selection Guide for Pressure Sensitive Adhesives

Non-Carboxylated Styrene-Butadiene

Product	Solids %	Viscosity cps	pH	Tg °C	S:B Ratio	Comments
Rovene 4813	50.0-54.0	50-350	8.5-9.5	-42	30:70	Soft film adhesives; low to medium tack; no adhesion build for use in removable labels
Rovene 4848	52.0-54.0	200-800	11.0-12.0	-38	40:60	Designed for two-part spray adhesives; contact and cold seal adhesives; fast break one-part adhesives; chloroprene/natural latex extender
Rovene 4220	52.0-54.0	200-800	8.0-8.4	-26	50:50	Flooring adhesive; chloroprene/natural latex extender; contact and cold seal adhesives

Carboxylated Styrene-Butadiene

Product	Solids %	Viscosity cps	pH	Tg °C	S:B Ratio	Comments
Rovene 9410	49.0-51.5	200-600	8.5-9.0	-56	25:75	Very soft; high molecular weight; excellent for low temperature adhesives
Rovene 9423	49.0-51.5	100-400	8.5-9.0	-44	35:66	Very soft; good for permanent labels with high adhesion
Rovene 4423	49.0-52.0	200-800	7.0-7.7	-44	35:65	Very soft; good for permanent labels with high peel and tack
Rovene 5044	49.5-52.0	200-800	7.0-8.0	-35	38:62	Permanent label and construction adhesives; high in peel and tack; require minimum amount of tackifier
Rovene 6105	49.5-52.0	90-300	8.5-9.0	-31	45:55	Good for high tack adhesives
Rovene 6130	49.0-51.5	200-600	8.5-9.0	-29	45:55	Good for high tack adhesives; self crosslinking

Acrylic

Product	Solids %	Viscosity cps	pH	Tg °C	Comments
Rovene 6050	49.0-51.0	30-120	6.0-7.0	-45	Base resin in flexible packaging laminating adhesives; excellent clarity; good adhesion to low surface energy
Rovene 97982	55.0-57.0	500 max	5.3-5.9	-45	Base resin in flexible packaging laminating adhesives; excellent clarity; high tack/peel; medium shear
Rovene 6001	59.0-61.0	300-1500	6.0-7.5	-38	Permanent label adhesives; high peel/tack; require minimum tackifiers
Rovene 6005	55.0-57.0	100-600	6.5-7.0	-38	High molecular weight; permanent label adhesives; high peel/tack; require minimum tackifiers

The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability.