

# SBR 1009AF elastomer for spray-applied adhesive applications

Cost effective additive for improving performance of spray adhesives

SBR 1009AF is a cost-effective polymer that can significantly improve the bonding strength of many spray adhesives on a variety of substrates, including sheet metal, fabrics, wood, plastics, insulation, foam, cardboard, paper, films, laminates, gaskets, labels, glass, pallets, textile and carpet. Best suited for lightweight bonding application at temperatures below 180°F, it dries quickly, boasts a fast and aggressive static shear strength, provides a long-lasting bond and yields a smooth film, free of cob webs when dried.

Because it is highly crosslinked, SBR 1009AF is widely used as a workhorse for misting spray adhesives. It is more cost effective than acrylic-based adhesives and provides better adhesion on tough surfaces than SBS at similar costs. Compatible with propellants such as dimethoxyethane (DME) and 1,1 difluoroethane, this polymer is commonly formulated with hexane, cyclohexane, heptane, toluene, acetone, t-butyl acetate, parachlorobenzotrifluoride and methyl acetate. It can be used in large containers in a mass-production environment (OEMs), propane size cylinders (contractors) and small cans (contractors & DIYs).

## APPLICATIONS

- *Sprayable adhesives*
- *Process aid for calendaring and extrusion*

## A VARIETY OF SPRAY PATTERNS AVAILABLE

SBR 1009AF, partially crosslinked with divinylbenzene, is widely accepted in spray adhesives. Formulators can design a wide variety of spray patterns with the polymer, from a pure mist to a web. SBR 1009AF has the highest crosslinking level of any product on the market, and it is preferred for adhesives designed to produce fine mist-type spray patterns. Spray adhesive improvements can be achieved easily with the addition of 8 to 10% SBR 1009AF in the formulation.



## BENEFITS

- *Highly cost-effective adhesion*
- *Compatible with various solvents*
- *Applicable to a wide array of substrates*
- *Dries quickly free of cob webs*
- *Highly crosslinked*
- *Fast and aggressive tack*
- *Long-lasting bond*





# SBR 1009AF elastomer

Highly crosslinked styrene butadiene rubber

## TYPICAL PROPERTIES

### SBR 1009AF

Emulsifier:	Fatty acid
Stabilizer:	Non-staining
Coagulants:	Acid
% of bound styrene:	23.5
% of shrinkage:	10 Max

SBR 1009AF formulation

Sprayable adhesive	
Ingredients, PHR	
SBR 1009AF	100
SBR 1009	150
Pentalyn H	190
Irganox 1520	2
Cyclohexane	600
Naphtha (Benzine)	900
Total	1942
% Solids	22.76
Brookfield Viscosity cP	7640
PSTC 180° Peel, lbs/in	1.2
Loop Tack-PSTC 16A	1.12

SBR 1009AF formulation with reduced VOC

Low VOC sprayable adhesive	
Ingredients, PHR	
SBR 1009AF	25
Pentalyn H	36
Irganox 1520	2
Nevtac 10	6
Acetone	86
Cyclohexane	73
Hexane	73
Total	301
% Solids	22.92
Brookfield Viscosity cP	105
PSTC 180° Peel, lbs/in	2.99
Loop Tack-PSTC 16A	1.20

Viscosity of SBR 1009AF polymers in various solvents (cP) at room temperature

	Toluene	Xylene	CycHex	Hexane	Heptane	Benzine <sup>3</sup>	IBIB <sup>2</sup>	TBAc <sup>1</sup>
5%	66	52	22	4	4	10	10	10
7.5%	4100	2600	214	6	8	70	40	14
10%	77000	95000	1966	10	10	58	174	24
12.5%	190000	200000	2260	10	30	522	1138	54
15%	200000	200000	170000	20	100	2570	6280	198

<sup>1</sup> TBAc = Tertiary Butyl Acetate

<sup>2</sup> IBIB = Isobutyl Isobutyrate

<sup>3</sup> Benzine = Petroleum Distillate

## FOR MORE INFORMATION

Contact your Lion Elastomers Account Representative or Technical Service, or visit [www.lionelastomers.com](http://www.lionelastomers.com).



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