

STYRENE BUTADIENE RUBBER FOR ADHESIVES AND SEALANTS



Dynasol
Group





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Dynasol Products For Adhesives and Sealants

Dynasol Group has over 35 years of experience as a supplier of polymers to the Adhesive & Sealant industry.

We are a Global supplier with a wide portfolio of SBS, SEBS, SSBR and Hot SBR products that are used in applications such as hot melts and solvent borne formulas for building and construction, PSA, non-PSA packaging, specialty labels, automotive sealants and FDA grade food packaging sealants.

Our polymer know-how has positioned Dynasol Group as one of the primary global suppliers of high purity FDA compliant grades of SBS, SEBS and Hot SBR products.

These products are produced to meet stringent requirements for purity and sensory factors, including odor and taste performance and are 100% compliant with all REACH requirements with zero levels Nonylphenol-type residuals. The emphasis on purity and quality assures a high standard of performance with clear benefits for all applications with exposure to consumer level users.

Dynasol Group's global footprint includes manufacturing plants and Technical centers located strategically in China, Europe and North America to supply and support our clients worldwide.

It is our commitment to continue to develop new and improved innovative products designed to enhance the value and performance of our customer's products.

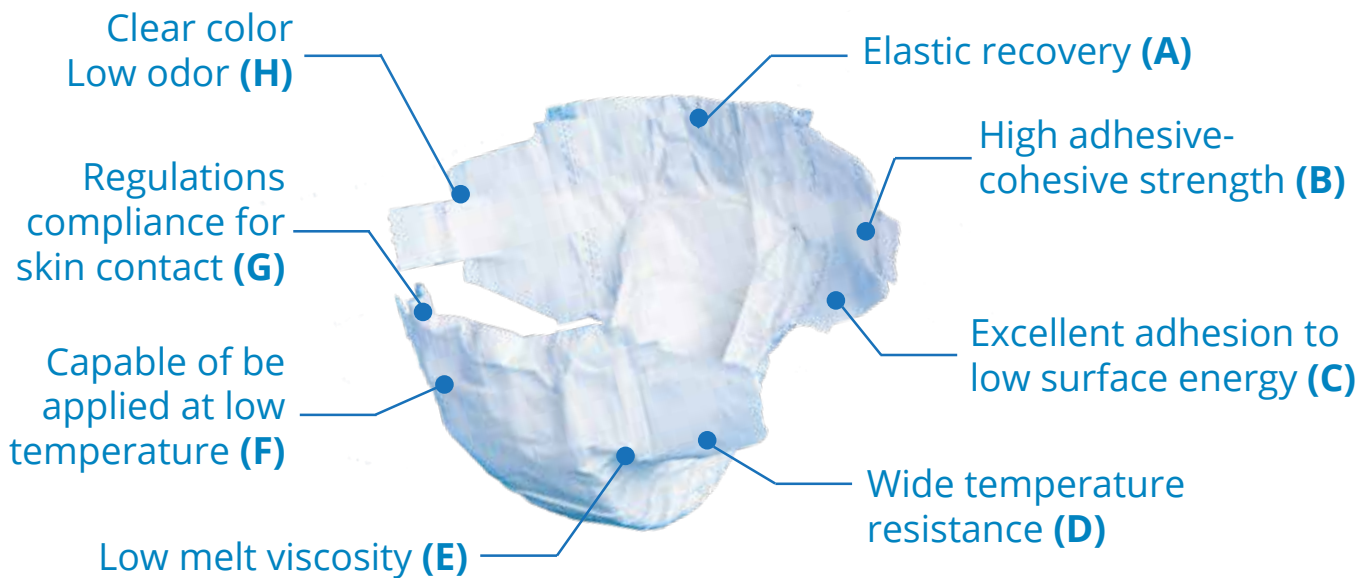
For more information about our portfolio please visit dynasolgroup.com

Hygiene Industry

The hygiene industry is a special segment that demands high quality in their adhesives used for diaper assembly, elastic attachment and position feminine care to underwear.

Dynasol Group has an excellent portfolio of styrene-butadiene copolymers to meet customer needs and market trends.

Adhesives Requirements



Dynasol recommended grades for the Hygiene Industry

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H
Calprene 743X	Linear SBS	43	360 ¹	23 ⁴	●	●	●	●	●	●	●	●
Calprene 540	Linear SBS	40	600 ¹	5.5 ⁵	◐	◐	◐	◐	◐	◐	●	●
Calprene 741X	Linear SBS	40	500 ¹	9.5 ⁵	◐	◐	◐	◐	◐	◐	●	●
Solprene 4428X	Radial SBS	40	430 ¹	10 ⁵	●	●	●	●	◐	◐	●	●

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H
Solprene 1205 / 1217	Linear SBR	25	4000 ²	---	---	⊖	●	⊖	⊖	⊖	●	●
Calprene H6110	Linear SEBS	32	470 ³	< 1 ⁶	⊖	⊖	⊖	●	⊖	⊖	●	●
Calprene H6215	Linear SBR	13	1500 ³	---	⊖	⊖	⊖	●	⊖	⊖	●	●

Requirement performance ● Excellent ⊖ Good ⊖ Regular

Condition test 1- 25% @ 25°C // 2- 30% @ 25°C // 3- 20% @ 25°C // 4- 200°C/5Kg // 5- 190°C/5Kg // 6- 230°C/2.16Kg



Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H	I
Solprene 4428X	Radial SBS	40	430 ¹	10 ⁷	●	◐	◑	●	◐	●	●	●	●
Calprene H6180X	Linear SEBS	15	---	10 ⁸	●	◐	●	●	●	●	●	●	◐
Solprene 1205 / 1217	Linear SBR	25	4000 ²	---	●	--	◐	●	●	●	●	●	◐
Solprene 5170X	Hybrid SBC	25	9.2 ³	8.9 ⁹	◐	◑	◑	●	◐	●	●	●	◐
Emulprene 1011	HSBR	23.5	3000-4000 ⁴	---	●	◐	●	--	◐	◐	●	◐	◐
Emulprene 1012	HSBR	23.5	150-300 ⁵	---	●	◐	●	--	◐	◐	●	◐	◐
Emulprene 1013	HSBR	43.5	550-750 ⁶	----	●	◐	●	--	◐	◐	●	◐	◐

Requirement performance ● Excellent ◐ Good ◑ Regular

Condition test 1- 25% @ 25°C // 2- 30% @ 25°C // 3- 5.23% @ 25°C // 4- 15% @ 25°C
5- 5% @ 25°C // 6- 10% @ 25°C // 7- 190°C/5Kg // 8- 230°C/2.16Kg
9- 200°C/25°C



Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H	I
Solprene 4318	Linear SBS/SB	32	700 ²	5 ⁶	●	●	◐	◐	◑	●	◐	●	◐
Solprene 4428X	Radial SBS	40	430 ²	10 ⁶	●	●	◐	◐	●	●	◐	●	●
Solprene 1205 / 1217	Linear SBR	25	4000 ³	---	●	●	◐	◐	◑	●	◐	●	◐
Solprene 5170X	Hybrid SBC	25	9.2 ⁴	8.9 ⁷	●	●	◐	◐	●	●	◐	●	◐

Requirement performance ● Excellent ◑ Good ◐ Regular

Condition test 1- 20% @ 25°C // 2- 25% @ 25°C // 3- 30% @ 25°C // 4- 5.23% @ 25°C
5- 230°C/2.16Kg // 6- 190°C/5Kg // 7- 200°C/5Kg

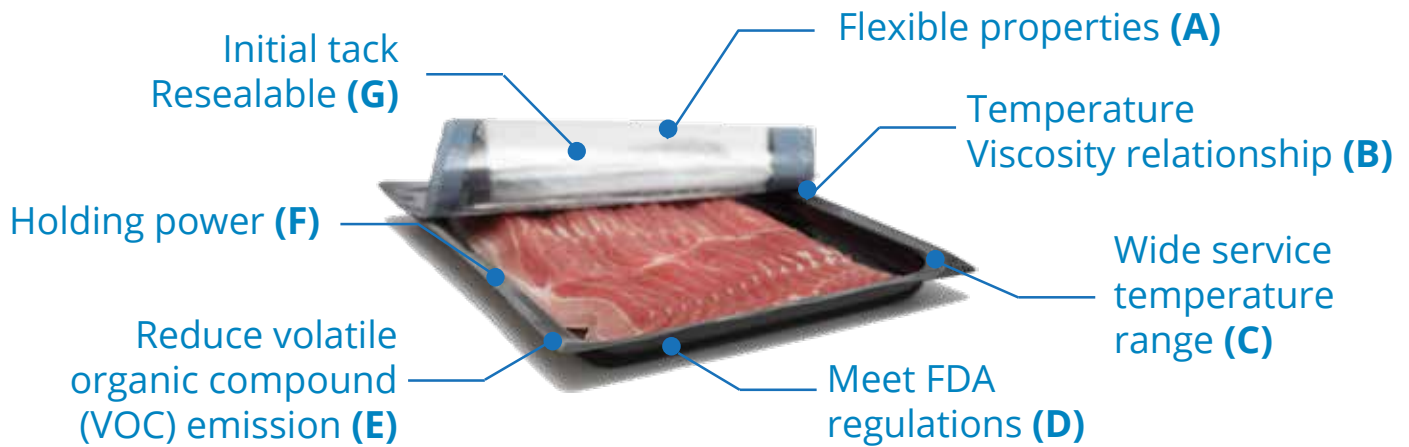


Packaging

Packaging is an industry that is currently growing due to the high demand to buy online and the new resalable food packaging.

Dynasol Group has the capacity to provide styrene-butadiene copolymers to formulate adhesives that must have special characteristics and meet specific requirements.

Adhesives Requirements



Dynasol recommended grades for Packaging

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G
Solprene 4301	Linear SBS/SB	33	3000 ¹	---	●	◐	◑	●	●	◐	◑
Solprene 4318	Linear SBS/SB	32	700 ¹	5 ⁴	●	◐	◑	●	●	◐	●
Calprene 540	Linear SBS	40	600 ¹	5.5 ⁴	●	◐	●	●	●	●	◐
Solprene 4428X	Radial SBS	40	430 ¹	10 ⁴	●	●	●	●	●	●	●
Solprene 416	Radial SBS	30	2200 ¹	---	●	◐	●	●	●	●	◐

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G
Solprene 1205 / 1217	Linear SBR	25	4000 ²	---	●	◐	◐	●	●	◐	●
Solprene 5170X	Hybrid SBC	25	9.2 ³	8.9 ⁵	●	◐	◐	●	●	◐	●

Requirement performance ● Excellent ◐ Good ◑ Regular

Condition test 1- 25% @ 25°C // 2- 30% @ 25°C // 3- 5.23% @ 25°C
4- 190°C/5Kg // 5- 200°C/5Kg

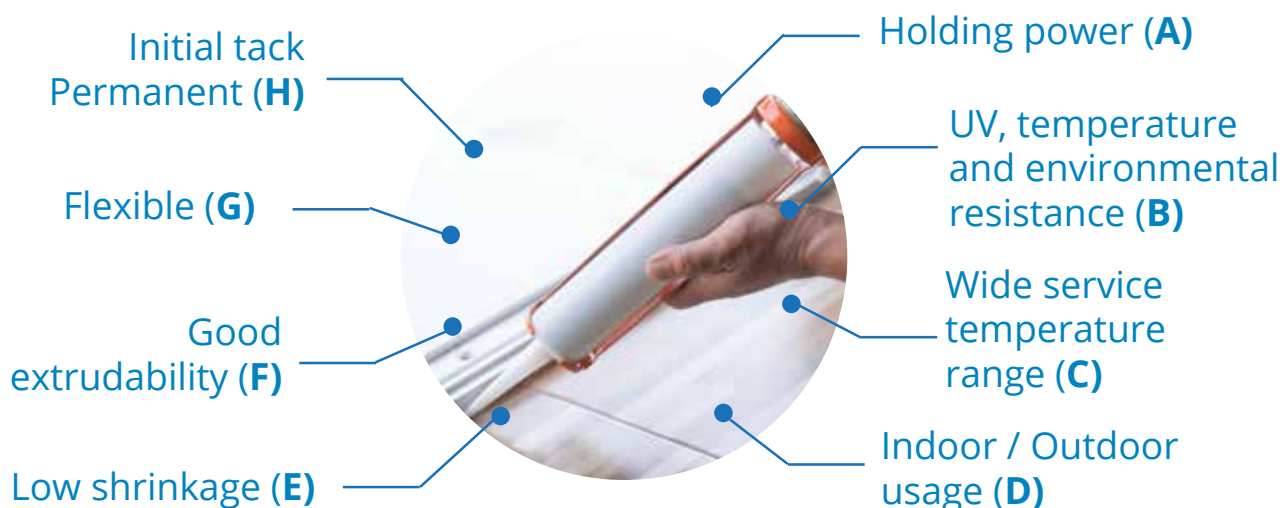


Building & Construction

Adhesives are used in the building and construction industry for automotive, floor, subfloors, walls, ceilings and bookbinding applications.

Dynasol Group offers a wide variety of products that can meet a special customer requirements like high cohesive strength, low viscosity, aggressive adhesion to polyolefins, vinyl, and other low energy films, clarity, UV and environmental resistance, comply with regulatory trends including the capacity of adhesives formulations with low VOC.

Adhesives Requirements



Dynasol recommended grades for the Building & Construction

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H
Calprene 500	Linear SBS	31	5000 ¹	5 ⁵	●	◐	◑	◒	◓	◔	●	◐
Calprene 501	Linear SBS	30	1100 ¹	---	◑	◐	◑	◒	◓	◔	●	◐
Calprene 540	Linear SBS	40	600 ¹	5.5 ⁵	●	◐	●	◒	◓	●	●	◐
Calprene H6110	Linear SEBS	32	470 ²	< 1 ⁶	◐	●	◑	●	◒	●	●	●

Brand Grade	Structure	Styrene Content, %	TSV, cP	MFI, g/10min	A	B	C	D	E	F	G	H
Calprene H6120	Linear SEBS	30	1900 ²	1 ⁶	☐	●	☐	●	☐	☐	●	☐
Calprene H6180X	Linear SEBS	15	---	10 ⁶	☐	●	☐	●	☐	●	●	●
Solprene 4301	Linear SBS/SB	33	3000 ¹	---	☐	☐	☐	☐	☐	☐	●	☐
Solprene 411	Radial SBS	30	20000 ¹	---	●	☐	●	☐	☐	☐	●	☐
Solprene 416	Radial SBS	30	2200 ¹	---	●	☐	●	☐	☐	☐	●	☐
Solprene 1205 / 1217	Linear SBR	25	4000 ³	---	---	☐	☐	☐	☐	●	●	●
Solprene 5170X	Hybrid SBC	25	9.2 ⁴	8.9 ⁹	☐	☐	☐	☐	☐	●	●	●
Emulprene 1013	HSBR	43.5	500-600 ⁵	---	☐	☐	☐	☐	☐	☐	●	●
Emulprene 1009LF	Cross-linked HSBR	23.5	120-400 ⁶	---	☐	☐	☐	☐	●	●	●	●

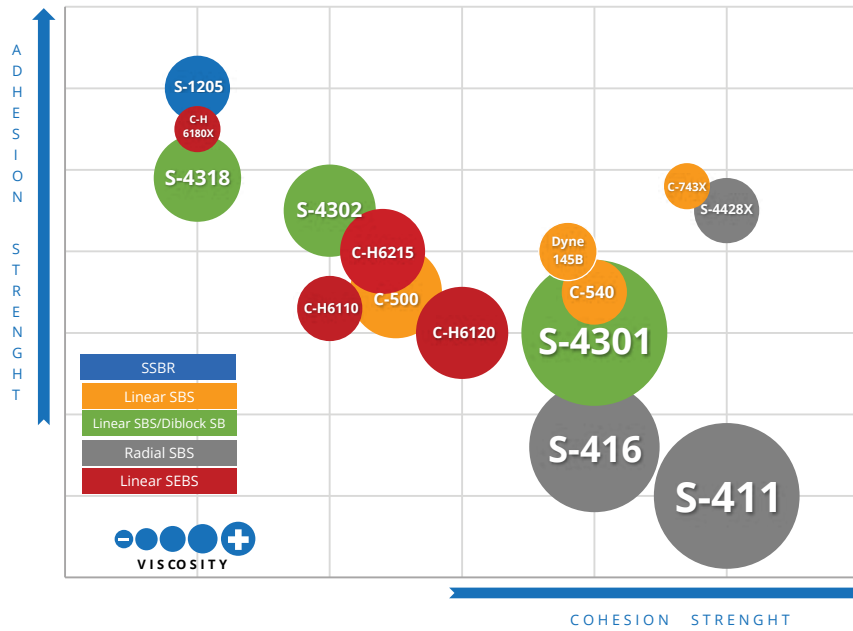
Requirement performance ● Excellent ● Good ● Regular

Condition test 1- 25% @ 25°C // 2- 20% @ 25°C // 3- 30% @ 25°C // 4- 5.23% @ 25°C
5- 10% @ 25°C // 6- 3.68% @ 25°C // 7- 190°C/5Kg // 8- 230°C/2.16Kg
9- 200°C/5Kg

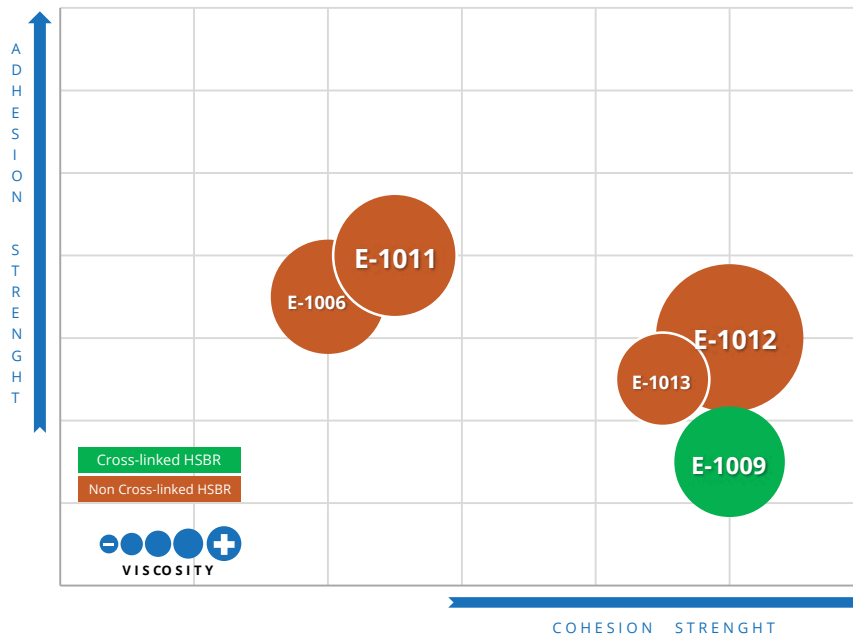


Products for Adhesives & Sealants

Solution Technology Products



Emulsion Technology Products



Dynasol Technical Experience

Technical Capability

Dynasol Group is committed to supporting its customers with the dynamism demanded by the market challenges of Adhesives & Sealants having an expert R&D department with the aim of maintaining the technological vanguard in the development of styrene-butadiene copolymers

Having two laboratories specializing in adhesives and sealants with global technical attention, one in Mexico and one in Spain, with technical staff dedicated to the development of new applications and provide assistance adhesive formulators in a quick and timely manner for the selection of raw materials and provide support for the development of applications.



Regulatory Guidance



The global presence of Dynasol Group allows us to be aware of the importance of being in tune with the ever-changing regulations around the world.

The products manufactured in all our sites are listed without ban in many of the chemical inventories in North and Latin America, Europe, Asia and Oceania, and comply with European and Chinese regulations for food contact, FDA standards for food contact materials, do not contain any substance included in the REACH SVHC candidate list or Annex XVII.

For further inquiries on regulations please contact marketing@dynasol.com





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