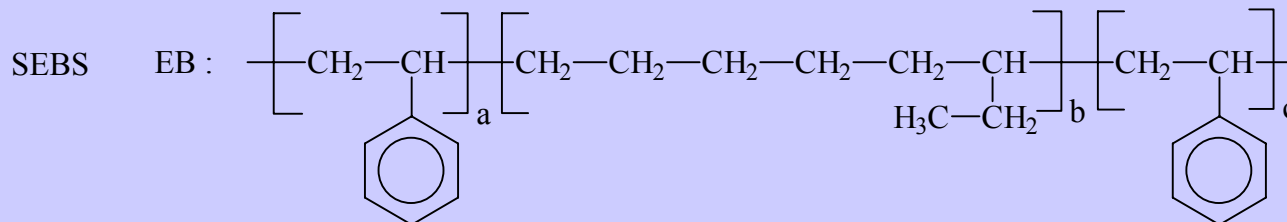
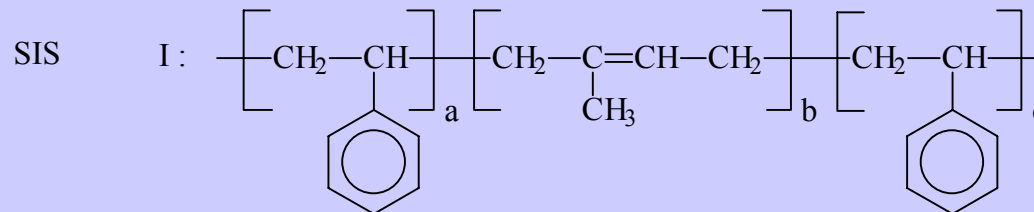
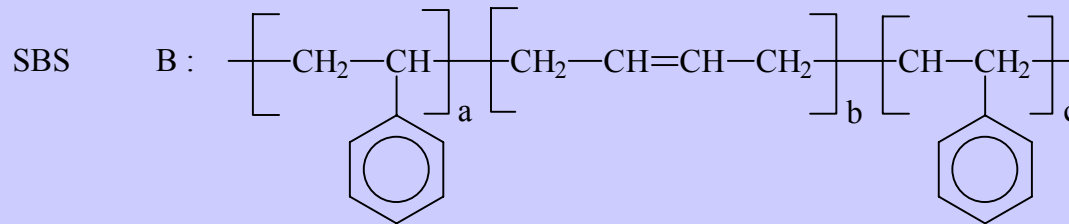


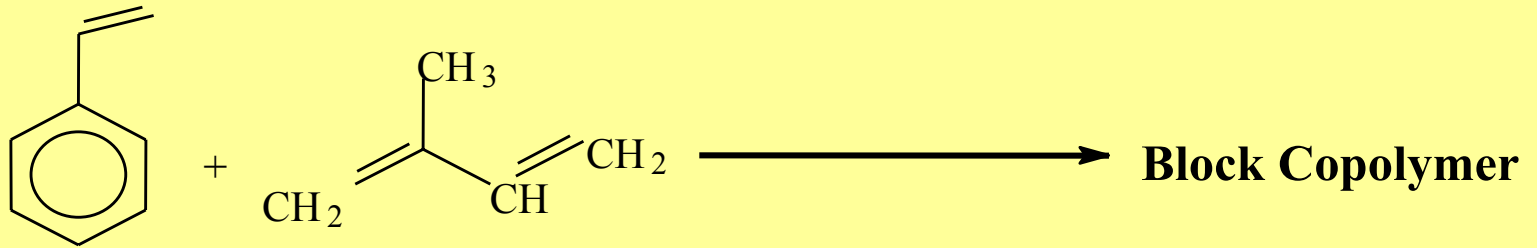
Styrenic Thermoplastic Elastomers

- **SBS** (polystyrene-polybutadiene-polystyrene)
- **SIS** (polystyrene-polyisoprene-polystyrene)
- **SEBS** (polystyrene-poly(ethylene-butylene)-polystyrene)
- **SEPS** (polystyrene-poly(ethylene-propylene)-polystyrene)



SIS (*Styrene-Isoprene-Styrene Triblock copolymer*) ?

S I S (*Styrene-Isoprene-Styrene Triblock copolymer*)



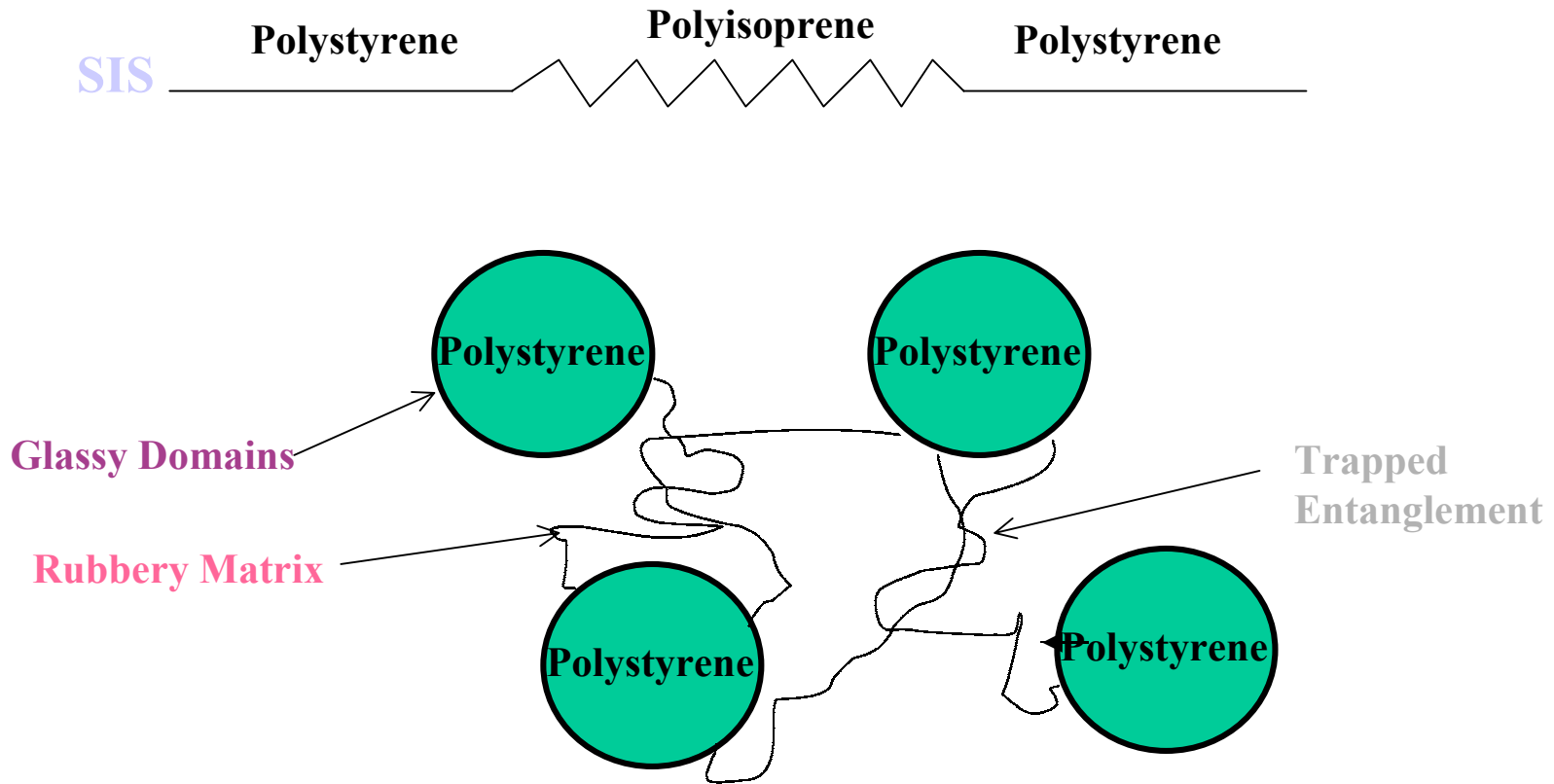
SIS VS SBS

	SIS	SBS
• 구분		Thermoplastic Elastomer
• Process		Anionic Polymerization
• Structure	PS-PI-PS	PS-PB-PS
• Raw Material	Isoprene/Styrene (85/15%)	Butadiene/Styrene(70/30%)
• Thermal Behavior	Chain Scission (Viscosity ↓)	Gelation (Viscosity ↑)
• Use	Pressure-Sensitive Adhesive Sealant	Asphalt modifier Footwear, etc.



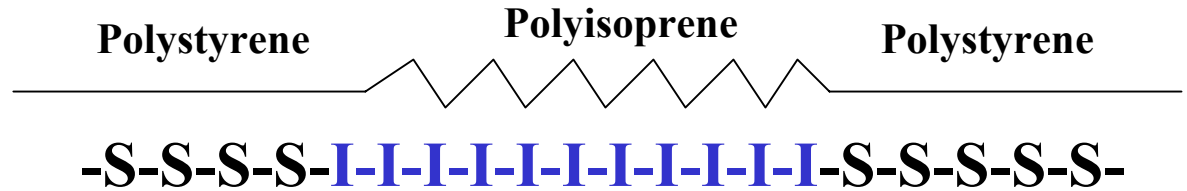
Morphology of SIS

Morphology of SIS showing polystyrene domains dispersed in the polyisoprene matrix

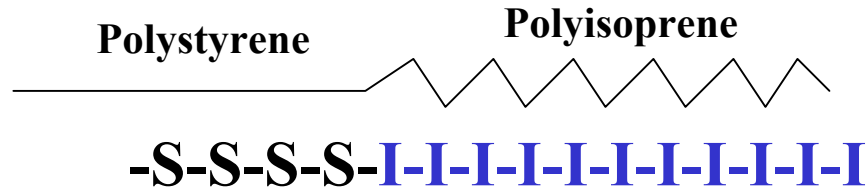


Triblock and Diblok

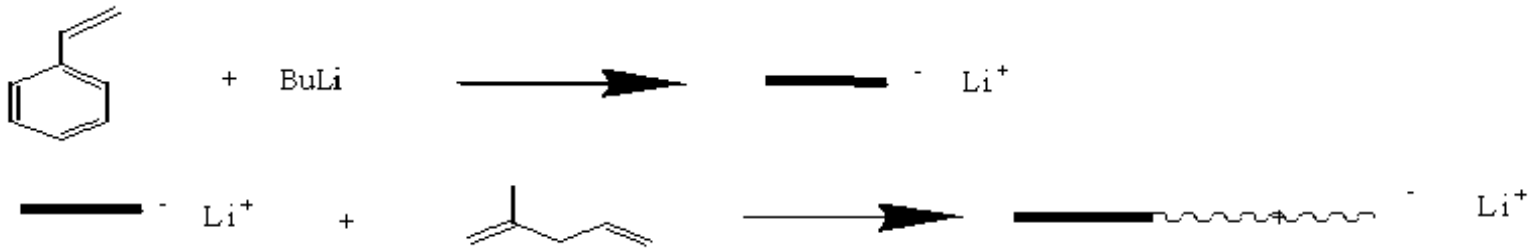
TRI BLOCK
(SIS)



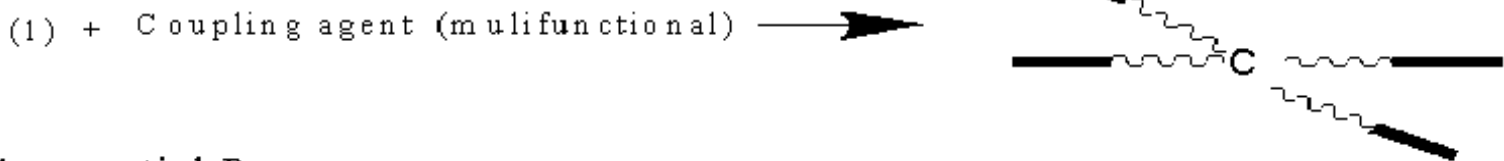
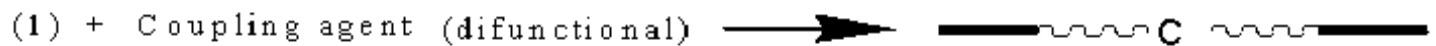
DI BLOCK
(SI)



SIS Polymerization Process



1. Coupling Process



2. Sequential Process



PAPENFUSS POLYMER GmbH, Bonnestr. 7, 21365 Adendorf

Tel.: 04131/981616 – Fax: 04131/981617

Mail: mail@papenfuss-adendorf.de



Yosu Plant Quality Assurance Team