



HS-SBR with higher solids content, enhanced flexibility and optimised strength

With extreme rainfall events now 52% more common globally¹, waterproofing has become a critical safeguard in modern construction. Stricter building codes, rising insurance risks, and growing consumer awareness are driving demand for waterproofing. Bitumen waterproofing underlayers are renowned for their durability, adhesion and long-lasting resistance to water ingress. This method is widely used on building structures such as roofs, basements and foundations.

LIPATON™ SB 4070 is a high-solids styrene-butadiene (HS-SBR) latex designed for anionic bituminous waterproofing applications. The latex delivers high elongation performance and optimised strength, demonstrating its inherent softness and flexibility. The very high solids content (70%) supports formulators to reduce drying time and shrinkage after drying of the polymer modified bitumen. HS-SBR latex also has very low water uptake behaviour.

Bitumen emulsions² enhanced with **LIPATON™ SB 4070** passed the following bituminous thick-coatings for waterproofing standard tests consistently:

- Flexibility at Low Temperature Test (EN 15813) – cold climate application
- Slotted Disc Pressure Test (EN 15820) – excellent resistance to hydraulic pressure (watertightness)

The water-based latex is biocide-free, with a high pH value that protects it against bacterial and fungal attacks during storage. It remains label-free, supporting safer and more sustainable formulations.

Property

LIPATON™ SB 4070

| | |
|---------------------|---------|
| Chemistry | HS-SBR |
| Solids Content in % | 70.0 |
| pH value | 11.0 |
| Viscosity in mPa·s | 1,100 |
| Tg in °C | -51 |
| Ionic Charge | Anionic |

Features

- Very high solids content
- Excellent elongation performance and tensile strength
- Low temperature flexibility and heat resistance
- Low water uptake
- Highly compatible with a vast spectrum of bitumen

Applications

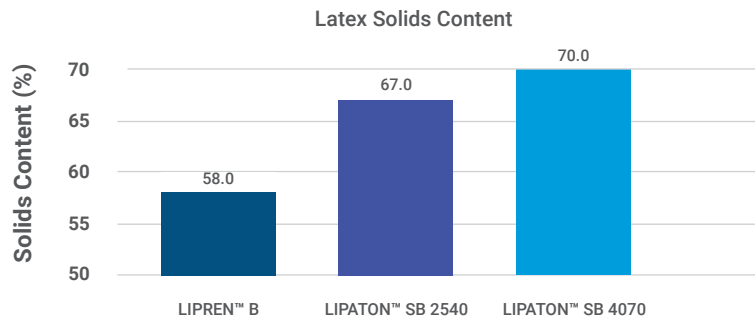
- Bituminous waterproofing
- Other anionic bituminous modification

¹ Global Water Monitor 2024 Summary Report, European Commission

² According to Synthomer internal bitumen standard

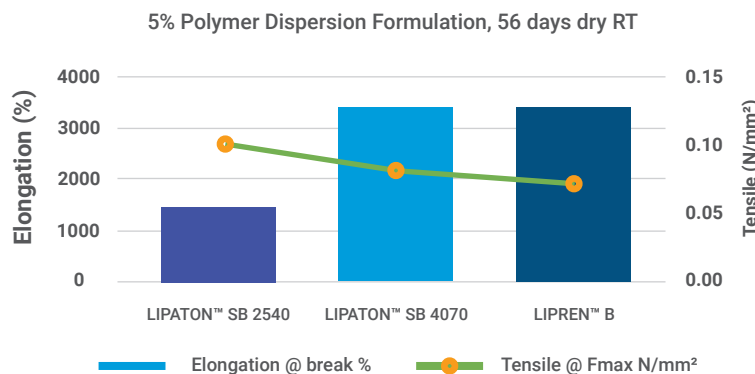
Performance Comparison

Solids Content %



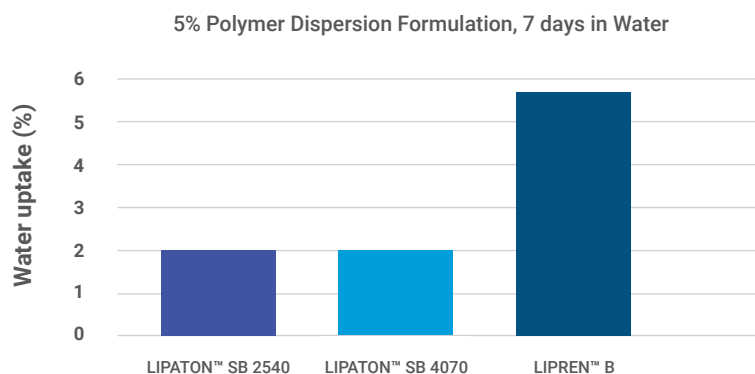
Higher solids content can support the drying property and reduce shrinkage after drying.

Elongation and Tensile Strength



Enhanced properties empower the bitumen emulsion to resist hydraulic pressure and maintain performance under low-temperature conditions.

Water Uptake %



HS-SBR guarantees low water uptake.

LIPREN™ B (polychloroprene) and LIPATON™ SB 2540 (HS-SBR) are existing latexes from Synthomer for bitumen waterproofing application.