

Polymers for the Asphalt Industry



Our expertise – your success. Our strengths lie in our knowledge of the industry, based on many years of experience, and our proximity to our customers.

BTC belongs to the world's leading chemical group, BASF – We create chemistry.

BTC is BASF's European sales organization for speciality chemical distribution. The company's eleven regional sales offices supply customers from numerous industry sectors all over Europe with about 6 000 high-quality chemicals and specialities.

Making sure that our customers benefit from a single contact person and one-stop service, we develop tailor-made solutions together with them. They also profit from the unique advantages of the BASF Verbund in terms of logistics and product availability and from the individual service provided by our local contacts.

Successful together

Customers from different industries have different requirements and needs. The fact that we focus fully on the specific expectations of each individual customer allows us to produce tailor-made service packages for our clients. This also includes complementing the innovative BASF products with those of selected suppliers. At your request, we will also support you in all laboratory and application-related questions.

From the moment your order comes in to the delivery of your goods, we give you more: personal contact, professional service, short delivery times, flexibility and creativity when it comes to meeting your requirements.

Your central BTC contacts bundle and manage all enquiries and provide you with competent advice on all your commercial and technical needs, directly and with no fuss. For us, proximity to our customers means that, if you wish, you only have one local contact person, regardless of where you are in Europe and where you need us – our standardized data and information system guarantees processes that are efficient from start to finish.





BTC – your expert in road construction

BTC supplies the asphalt industry with high quality asphalt modifiers. Our Butonal® SBR polymers for asphalt modification are manufactured in a highly automated state-of-the-art facility, ensuring consistently high quality. The products are successfully used in both hot mix and asphalt emulsions applications, both domestically and globally.

Our excellent technical capabilities and knowledge allow us to work closely with our customers creating value added solutions. Our research efforts continue to push the frontier in asphalt polymer innovation. Add to this consistent and accurate invoicing, consistent product quality, and our excellent on-time delivery record – BTC is the ideal partner in business.

Our products

Butonal® NS 175

An anionic dispersion of styrene-butadiene polymer used in hot mix asphalt and emulsion applications. Produces paving binders that meet SHRP specifications.

Butonal® NX 1129

A specially formulated crosslinkable anionic dispersion of styrene-butadiene polymer used to produce binders with increased strength and elasticity in both hot mix asphalt and emulsion applications. Creates compatible asphalt binders that are resistant to polymer separations and meet SHRP Plus specifications.

Butonal® NS 198

A cationic dispersion of styrene-butadiene polymer used in asphalt emulsion applications.

Butonal® NX 4190

A premium cationic SBR latex that provides excellent early strength development and adhesion in surface dressing and micro-surfacing/slurry seal applications.

SBR-Polymers for asphalt modification

Product	Solids (%)	pH	Apparent viscosity (mPa·s)	Density (g/cm ³)	Surfactant charge	Features
Hot asphalt modification and anionic emulsion						
Butonal® NS 175	70–72	10.0–11.0	1,000 – 1,500	approx. 0.94	Anionic	Readily disperses in asphalt cements; improves binder strength, ductility and flexibility to meet SHRP* specifications
Butonal® NX 1129	70–72	10.0–11.0	1,000 – 1,500	approx. 0.94	Anionic / Crosslinkable	Readily disperses in asphalt cements; creating strong, elastomeric binders that meet SHRP Plus specifications

Cationic emulsions

Butonal® NS 198	63–65	4.5–5.0	250 – 2,000	0.94	Cationic	Improves asphalt binder strength, ductility and flexibility
Butonal® NX 4190	63–65	5.0–5.5	250 – 2,000	0.94	Cationic	Specially designed for early strength development and adhesion in surface dressing and micro-surfacing / slurry seal applications

BASF asphalt modifiers

Offering a world of solutions for your asphalt paving applications

Product	Hot modification	Direct injection	Anionic emulsions	Cationic emulsions
Butonal® NS 175	■	■	■	
Butonal® NX 1129	■	■	■	
Butonal® NS 198				■
Butonal® NX 4190				■



Applications

Hot mix asphalt

BASF Butonal® polymers have long been a leader in asphalt modification. Our Butonal® polymers greatly enhance hot mix asphalt performance including the production of performance graded asphalts. Modification with these elastomers widens the asphalt's useful temperature interval to improve resistance to rutting at high temperatures and decrease the susceptibility to thermal cracking at low temperatures. The resulting binder also displays superb resilience to improve the pavement's fatigue behaviour diminishing the cracking attributed to wear and use.

All of these performance benefits are attained easily as Butonal® polymers are readily dispersible into the asphalt without the need for high shear milling, with the flexibility to be added to both the asphalt binder or final mix.

Chip seal and surface dressings

BASF Butonal® polymers have set new chip seal performance standards. Highly efficient, enhancing both early and long-term performance in chip seal systems. They are easily dispersible into asphalt emulsions and can be added to the soap solution or co-milled along with the soap or directly injected into the asphalt line during milling.

Research shows that it is imperative that the polymer is in the water phase of the emulsion to attain maximum benefit and Butonal® polymers make this possible. Upon curing they form a continuous phase modifying the asphalt binder in situ. This network positively affects the binder's early strength development to greatly improve early aggregate adhesion immediately upon placement. The resulting chip seal experiences a drastic reduction of aggregate loss in the first hours of application.

As time passes, the increased strength and elastomeric nature of the SBR polymer network imparts tremendous resistance to fatigue and reduces the loss of aggregate over the long-term, extending the life of the surface treatment.

Slurry seal and micro-surfacing

BASF Butonal® polymers are also an important component in modified slurry seal and micro-surfacing applications. As in other emulsion systems, the SBR polymer dispersed into the water phase forms a continuous polymer network upon curing. This results in the formation of bi-continuous phases of asphalt and polymer. The asphalt provides adhesion and desired hardness, while the SBR network provides strength and elasticity.

This composite binder formed in slurry seal and microsurfacing systems with Butonal® polymers exhibits improved strength development, resilience, and high temperature performance, as well as a drastic reduction in abrasion loss.

The polymer modification also allows for increased binder film thickness that allows for thicker lifts such as rut-fill applications. BASF Butonal® polymers are easily dispersible into slurry seal and micro-surfacing emulsions and can be added to the soap phase or co-milled into the soap or asphalt line upon production.

Specialty coating

The use of BASF asphalt modifiers is not limited to paving applications. They also find use in water proofing membranes, pipe and tank coatings, roofing applications, sealers, automotive sound deadening and underbody protection.

The addition of BASF asphalt modifiers, improves the properties of the specialty coatings. These include improved stress strain properties, final strength, and long lasting elastometric properties.

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