

# Butonal<sup>®</sup> NX 4190

## Polymer Dispersions for Construction

**Chemical nature** Aqueous, high solid, cold-polymerized, cationic styrene-butadiene dispersion for modifying cationic bitumen emulsions

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### Properties

**Physical form** Liquid, dispersion

**Technical data**

(no supply specification)

Solids content	EN ISO 3251	~ 64 %
pH value	EN ISO 976	~ 5.4
Viscosity, dynamic (at 23 °C, 100 1/s)	EN ISO 3219	~ 250 - 2000 mPa s
Density		~ 0.96 g/cm <sup>3</sup>
Tg	DSC	~ - 53 °C

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## Application

### Features

Butonal® NX 4190 is a mechanically stable latex polymer dispersion that is readily incorporated into cationic asphalt emulsions through addition to the soap solution (batch process) or co-milling (continuous process). Butonal® NX 4190 provides excellent cohesion and adhesion properties with aggregate and significantly enhances the residue properties such as Forced Ductility, Toughness & Tenacity, Elastic Recovery and Softening Point over conventional cationic polymers.

### Applications

Butonal® NX 4190 is a premium cationic SBR latex that provides excellent early strength development and adhesion in the following applications:

- Chip Seal
- Slurry seal
- Micro surfacing

Butonal® NX 4190 can also be used to modify hot mix asphalt in order to meet modified binder specifications as well as to provide improvements in conventional properties such as increased softening point and decreased penetration.

### Processing

Periodic mechanical stirring is required to maintain a homogeneous mixture. Some separation is possible due to the specific gravity and particle size distribution of latex polymer dispersion.

Generally, the preferred means of stirring is with a separate propeller type stirrer. This low-speed, low-shear mechanical stirrer can be located off-center, set at an angle, or side-mounted near the tank bottom to prevent latex foaming or vortex formation. Center-stirring requires tank baffles. It is recommended that material be agitated for 10 - 20 minutes every 24 hours in storage.

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## Storage

### Storage

Butonal® NX 4190 has a shelf life of six months from delivery date, provided it is stored in accordance with the "Handling and Storage of polymer dispersions" brochure. The container must be protected from frost and prolonged exposure to temperatures higher than 40 °C. The optimal storage temperature corresponds to normal room temperature approx. 18 - 21°C. The storage inside closed buildings is to be preferred to avoid larger temperature fluctuations. Further technical information regarding the storage of BASF polymer dispersion products is available upon request.

### Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

### Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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