

BNX[®] 5010 TPR Antioxidant & SIS Thermoplastic Pelletized Blend

Introduction: BNX[®] 5010 TPR is a pelletized blend of BNX[®] 1010 and a SIS (styrene-isoprene-styrene) thermoplastic rubber. BNX[®] 1010 is a high molecular weight hindered phenolic antioxidant. It is an effective, non-discoloring stabilizer that provides excellent long-term heat stability by preventing thermo-oxidative degradation during processing and service life. This antioxidant also provides good compatibility with resins and excellent extraction resistance. The SIS (styrene-isoprene-styrene) thermoplastic rubber has a styrene content of 14%, diblock content of 12% and a melt index of 9.

Material Description: Antioxidant and SIS Thermoplastic Rubber Pelletized Blend

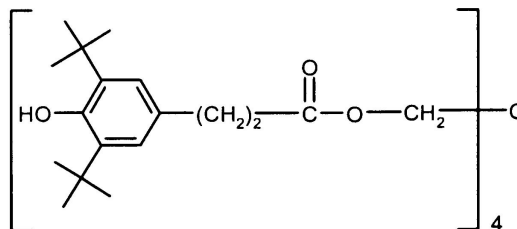
Chemical Name: BNX[®] 1010: Tetrakis [Methylene-3 (3',5'-di-tert-butyl-4-hydroxyphenyl) propionate] methane
SIS: Styrene-isoprene-styrene Thermoplastic Rubber

Empirical Formula: C₇₃H₁₀₀O₁₂ (BNX[®] 1010)
SIS: Proprietary

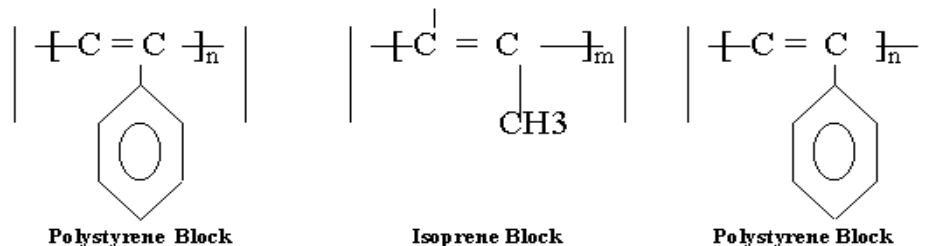
CAS #: 6683-19-8 (BNX[®] 1010)
25038-32-8 (SIS)

Chemical Structure:

BNX 1010



SIS Rubber



Physical Properties:

Appearance: white opaque pellet
Pellet Weight: 0.6-1.2 g/50 pellet
BNX[®] 1010 concentration: 48-52%

Applications:

BNX[®] 5010 TPR is a 50:50 blend of BNX[®] 1010 and SIS thermoplastic rubber in a pelletized form. This product is used in the manufacture of hot-melt pressure sensitive adhesives (HMPSA) using single or twin-screw extruders. This unique product can also be used with sigma mixers to achieve a more uniform dispersion of the antioxidant in the HMPSA. BNX[®] 5010 TPR is compatible with other SIS thermoplastic elastomers such as Quintac[®] 3620, Kraton D1161P, Kraton D1193, Enichem ST-190, and Vector 4113.

Advantages:

- Accurate Dispensing in Loss-In-Weight Feeders (i.e. K-Tron)
 - Uniform shape and size
 - Pellets are durable enough for air conveying (will not break-up)
 - High melt resistance / non-bridging or blocking
- Increased Processing efficiencies
 - Reduced handling time
 - Increased product dispersibility in twin screw extruders and sigma mixers
 - Compatible with standard antioxidant metering equipment
 - Minimal screw slippage
 - Dry and dust free
- Reduced Health Hazards
 - Caused by dust inhalation
 - Caused by prolonged skin contact
- Reduced fire and explosion hazards
 - Caused by electrostatic charge build-up – no powders

Loading Instructions:

The loading data and results are based on laboratory work (and field testing) under controlled conditions and do not necessarily indicate the result that the buyer or user will attain. For this reason we strongly recommend testing of your own system under the actual conditions of processing and end-use prior to full scale testing. Concentration levels of the antioxidant (BNX[®] 1010) in hot melt adhesives range from 0.2% to 1%. Therefore the feed rate of BNX[®] 5010 TPR should be 0.4% to 2%. Exact loading must be determined by compositions of the specific polymer system.

Packaging:

BNX[®] 5010 TPR is available in 900-lb Gaylord containers.

Storage:

This product may be stored up to two years in a closed container. Containers should be stored in a cool, dry area. Storage at elevated temperatures or exposure to direct heat or sunlight could reduce the product life and could result in clumping or blockage. Keep containers closed and in a cool dry area when not in use.

Toxicity & Safety:

This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, or implantation within the human body is specially intended, unless the finished product has been tested in accordance with the Food and Drug Administration and/or other applicable safety testing requirements. Because of wide range of such potential uses, Mayzo, Inc. is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses. Read and understand the Material Safety Data Sheet before using or handling this product.

FDA Regulations:

The regulation status for BNX[®] 5010 TPR is derived from the single components. Both ingredients, BNX[®] 1010 and SIS rubber, are approved in food contact application; however, please consult the individual data sheets for specific detailed information.

[Quintac[®] is a registered trademark of Zeon Chemicals.]

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