BNX® 5010 TPR
Pelletized Antioxidant Concentrate in SIS

Overview
BNX 5010 TPR is a 50% active pelletized concentrate of the phenolic antioxidant BNX 1010 in an SIS (styrene-isoprene-styrene) thermoplastic rubber. The BNX 1010 component is an effective, non-discoloring stabilizer that provides excellent long-term heat stability by preventing thermo-oxidative degradation during processing and service life. It also exhibits good compatibility with resins and excellent extraction resistance. The SIS component has a styrene content of 14%, diblock content of 12% and a melt index of 9.

Chemistry (Active Component)
Chemical Name: Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 1,1’-[2,2-bis[[3-[5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]methyl]-1,3-propanediyl] ester
CAS Number: 6683-19-8

Typical Properties
Product Form: Solid
BNX 1010 Content: 48 – 52% by weight
Pellet Weight: 0.6 – 1.2 g/50 pellets

Applications
BNX 5010 TPR is a 50% active concentrate of BNX 1010 in SIS provided in a convenient pelletized form. This product is recommended for use 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 a wide range of SIS grades such as Quintac® 3620, Kraton® D1161P, Kraton® D1193, and Vector® 4113.
Advantages

- Accurate dispensing in loss-in-weight feeders (i.e. K-TRON®)
- Uniform pellet shape and size
- Non-friable pellets that are durable enough for air conveying
- High melt resistance / non-bridging or blocking
- Increased processing efficiency
- Reduced handling time
- Improved product dispersibility in extruders and sigma mixers
- Compatible with standard antioxidant metering equipment
- Minimal screw slippage
- Improved hygiene
- Low dusting form minimizes hazards associated with dust generation and accumulation
- Excellent compatibility with styrenic polymers, engineering plastics, polyurethanes, and PVC
- Low volatility
- FDA cleared for use in adhesives

Guidelines for Use

Typical recommended loading concentrations in HMPSA range between 0.4% and 2% (0.2–1% based on the BNX 1010 active component). The exact formulation to be used is dependent on the substrate, performance requirements, and other factors, and should be determined by the user based on testing to simulate actual conditions of use. Please contact Mayzo for specific recommendations.

Storage

This product may be stored up to two years in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

Safety

Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

FDA Regulations

The components of BNX 5010 TPR have been cleared for use in adhesives under 21 CFR §175.105. Please contact your Mayzo representative for complete details, including restrictions of use.

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