FLEXSYS

Product Data

PERKACIT MBT

2-Mercaptobenzothiazole

CAS Reg. No.: 149-30-4

Molecular weight: 167

FUNCTION

Perkacit MBT is a moderately fast curing primary accelerator for natural and synthetic rubbers.

MAJOR APPLICATIONS AND PROPERTIES

- In NR compounds, Perkacit MBT based vulcanization systems exhibit less reversion upon overcure than other systems.
- Its low activation energy makes compounds rather scorchy, particularly in furnace black reinforced compounds. Compound scorch behavior can be improved by replacing Perkacit MBT with Perkacit MBTS.
- Vulcanizates obtained with Perkacit MBT tend to have a relatively low modulus, but very good aging properties.
- To achieve a faster cure and a higher modulus, Perkacit MBT can be boosted by the use of secondary accelerators, such as Perkacit ZBEC, Perkacit ZDEC, Perkacit TBzTD, Perkacit TMTD or Perkacit DPG.
- For the vulcanization of EPDM or IIR rubbers, Perkacit MBT is a well established component of many existing vulcanization systems.
- Perkacit MBT also finds application in latex foam cure systems.
- The product is non-staining and non-discoloring.
- Perkacit MBT is regulated for use in articles in contact with food as specified under FDA 21 CFR 177.2600, 175.105, 176.300 and under BgVV XXI, Categories 1-4 and "Sonderkategorie".

COMPOUNDING INFORMATION

In NR compounds Perkacit MBT can be used as the sole accelerator at levels ranging from 1.0 to 1.5 phr.
In combinations with other accelerators its typical usage level can vary between 0.5 and 1.5 phr.
In SBR compounds Perkacit MBT is usually used from 1.5 to 3.0 phr either alone or in combination with other accelerators.
In IIR or EPDM compounds levels up to 1.5 phr may be used in combinations with other accelerators, such as Perkacit TMTD, Perkacit ZDMC, Vocol ZBPD, and/or Santocure CBS.
For latex and latex foam applications a 50 % aqueous dispersion should be used to establish, for instance, a typical SBR latex foam cure system with Perkacit MBT: 1.0 to 2.0 (dry) phr, Perkacit ZDEC: 1.5 phr, and sulfur 2 phr.

HANDLING PRECAUTIONS

For detailed information on toxicological properties and handling precautions please refer to the current Safety Data Sheet. This information sheet can be downloaded from our web site or requested from the nearest Flexsys office and should be consulted before handling this product.

STORAGE RECOMMENDATIONS

Store Perkacit MBT in a cool, dry, well ventilated area, avoiding exposure of the packaged product to direct sunlight.

PRODUCT INFORMATION

Perkacit MBT Product form		pdr powder	pdr-d dust suppressed powder	
PRODUCT SPECIFICATIONS				Test method
Appearance		off white to cream powder	off white to cream powder	FF97.5
Assay (titration)	(%) min.	96.0	95.0	FAc97.2
Melting point, initial	(°C) min.	171	169	FF83.9
Melting point, final	(°C)	176-183	176-183	FF83.9
Heat loss	(%) max.	0.5	0.5	FGr97.7
Ash	(%) max.	0.5	0.5	FGr90.9
Additive	(%)	-	1.0-2.0	FGr83.6
Residue on 150 µm sieve	(%) max.	0.05	0.05	FF83.8
Residue on 63 µm sieve	(%) max.	0.5	0.5	FF83.8
TYPICAL PROPERTIES				
Density at 20°C	(kg/m³)	1525	1510	
Bulk density	(kg/m³)	480-520	400-440	
Compacted bulk density	(kg/m³)	700-740	560-600	

Perkacit MBT is also available as 80% masterbatch

MARKETED BY
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